

ELECTORAL AREA SERVICES COMMITTEE

OPEN MEETING AGENDA

Tuesday, December 11, 2018

1:30 pm

FVRD Boardroom, 45950 Cheam Avenue, Chilliwack, BC

Pages

1. CALL TO ORDER by Chief Administrative Officer

2. ELECTION OF ELECTORAL AREA SERVICES COMMITTEE CHAIR by Chief Administrative officer

9 - 10

Section 5.4.7 of Board and Committee Procedures Bylaw No. 1305, 2015 states: *'The Chair and Vice Chair of the Electoral Area Services Committee shall be elected in accordance with Section 4.10.'*

- Procedural Rules - Section 4.10 of Board and Committee Procedures Bylaw No. 1305, 2015

3. ELECTION OF ELECTORAL AREA SERVICES COMMITTEE VICE CHAIR by Chief Administrative Officer

4. REMARKS BY ELECTORAL AREA SERVICES COMMITTEE CHAIR

5. APPROVAL OF AGENDA, ADDENDA AND LATE ITEMS

MOTION FOR CONSIDERATION

THAT the Agenda, Addenda and Late Items for the Electoral Area Services Committee Open Meeting of December 11, 2018 be approved;

AND THAT all delegations, reports, correspondence and other information set to the Agenda be received for information.

6. DELEGATIONS AND PRESENTATIONS

6.1 Discussion on a Policy for Non-Farm Use Cannabis Production Facilities

- Presentation by Staff

6.1.1 Non-Farm Use Application for Cannabis Production - 58551 Dent Rd, Laidlaw, Electoral Area "B"

11 - 106

- Corporate report dated December 11, 2018 from Graham Daneluz, Deputy Director of Planning and Development
- Non-Farm Use Application

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board forward the Non-Farm Use application for a cannabis production facility at 58551 Dent Road, Electoral Area “B” to the Agricultural Land Commission with support subject to an offer and commitment from the landowner to register a covenant in favour of FVRD regarding the use of the building, lighting, and odours as described in the Report dated 2018-12-11.

7. MINUTES/MATTERS ARISING

7.1 Minutes of the Electoral Area Services Committee Meeting - October 11, 2018 107 - 112

MOTION FOR CONSIDERATION

THAT the Minutes of the Electoral Area Services Committee Open Meeting of October 11, 2018 be adopted.

8. CORPORATE ADMINISTRATION

8.1 Electoral Area Director Attendance at the 2019 Local Government Leadership Academy (LGLA) Elected Officials Seminar - January 16 to 18, 2019 113 - 116

- Corporate report dated December 11, 2018 from Jaime Reilly, Manager of Corporate Administration
- LGLA Seminar Program

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board authorize Electoral Area Directors to attend the 2019 Local Government Leadership Academy Elected Officials Seminar to be held in Richmond, BC between January 16 and 18, 2019;

AND THAT registration fees, accommodation and travel costs be approved from Budget 102, Electoral Area Administration.

8.2 2019 FVRD Board and Committee Meeting Schedule 117 - 119

- Corporate report dated December 11, 2018 from Jaime Reilly, Manager of Corporate Administration
- 2019 FVRD Board and Committee Meeting Schedule

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board consider approval of the draft 2019 Board and Committee Schedule.

9. FINANCE

No Items.

10. ENGINEERING & UTILITIES

10.1 FVRD Hatzic East Water System Loan Authorization Bylaw No. 1505, 2019 – Electoral Area "G" 120 - 125

- Corporate report dated December 11, 2018 from Katarina Duke, Engineering and Community Services Technologist
- Draft Bylaw No. 1505, 2019

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Hatzic East Water System Loan Authorization Bylaw No. 1505, 2019*.

10.2 FVRD Canyon Alpine Water System Loan Authorization Bylaw No. 1507, 2019 – Electoral Area "A" 126 - 130

- Corporate report dated December 11, 2018 from Katarina Duke, Engineering and Community Services Technologist
- Draft Bylaw No. 1507, 2019

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Canyon Alpine Water System Loan Authorization Bylaw No. 1507, 2019*;

10.3 FVRD Dogwood Water System Capital Construction Loan Authorization Bylaw No. 1509, 2019 – Electoral Area "B" 131 - 134

- Corporate report dated December 11, 2018 from Katarina Duke, Engineering and Community Services Technologist
- Draft Bylaw No. 1509, 2019

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Dogwood Water System Capital Construction Loan Authorization Bylaw No. 1509, 2019*.

10.4 FVRD Electoral Area "D" Water System Capital Construction Loan Authorization Bylaw No. 1511, 2019 135 - 139

- Corporate report dated December 11, 2018 from Katarina Duke, Engineering and Community Services Technologist

- Draft Bylaw No. 1511, 2019

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Electoral Area D Water System Capital Construction Loan Authorization Bylaw No. 1511, 2019*;

10.5 **FVRD Hatzic Prairie Water Supply and Distribution System Service Area Amendment Bylaw No. 1512, 2019 and FVRD Hatzic Prairie Water System Capital Construction Service Area Amendment Bylaw No. 1513, 2019, Electoral Area "F"** 140 - 149

- Corporate report dated December 11, 2018 from Katarina Duke, Engineering and Community Services Technologist
- Draft Bylaw No. 1512, 2019
- Draft Bylaw No. 1513, 2019

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Hatzic Prairie Water Supply and Distribution System Service Area Amendment Bylaw No. 1512, 2019*;

AND THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area Amendment Bylaw No. 1513, 2019*.

11. **PLANNING, BUILDING INSPECTION AND BYLAW ENFORCEMENT**

11.1 **Popkum-Bridal Falls Community Plan Bylaw No. 1501, 2018, Electoral Area "D"** 150 - 369

- Corporate report dated December 11, 2018 from Dawn Smith, Planner II
- Draft Bylaw No. 1501, 2018

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board consider giving first reading to the bylaw cited as *Fraser Valley Regional District Official Community Plan for Popkum-Bridal Falls Bylaw No. 1501, 2018*;

THAT the Fraser Valley Regional District Board authorize community engagement as outlined in the report dated December 11, 2018 to provide

feedback on the draft Official Community Plan Bylaw No. 1501, 2018;

AND THAT draft *Fraser Valley Regional District Official Community Plan for Popkum–Bridal Falls Bylaw No. 1501, 2018* be referred to various agencies for comment.

11.2 Rezoning application for 10304 Agassiz-Rosedale Highway, Electoral Area “D” to facilitate a proposed four (4) lot suburban residential subdivision - Bylaw No. 1502, 2018.

370 - 393

- Corporate report dated December 11, 2018 from David Bennett, Planner II
- Draft Bylaw 1502, 2018
- Application

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board consider giving first reading to the bylaw cited as *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018* for the purpose of rezoning 10304 Agassiz-Rosedale Hwy (Highway 9) to facilitate a four (4) lot suburban residential subdivision;

THAT the *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018* be forwarded to Public Hearing;

THAT the Fraser Valley Regional District Board delegate the holding of the Public Hearing with respect to the proposed *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018* to Director Dickey or, in his absence, the Alternate Director for Area D;

THAT Director Dickey or his alternate preside over and chair the Public Hearing with respect to proposed *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018*;

AND THAT the Chair of the Public Hearing be authorized to establish procedural rules for the conduct of the Public Hearing with respect to proposed *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018* in accordance with the Local Government Act;

AND FURTHER THAT in the absence of both Director Dickey and his alternate at the time of the Public Hearing with respect to proposed *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018*, the Fraser Valley Regional District Board Chair is delegated the authority to designate who shall preside over and chair the Public Hearing regarding this matter;

AND FINALLY THAT the Fraser Valley Regional District Board authorize its signatories to execute all documents relating to *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018*.

11.3	<p><u>Application for Development Variance Permit 2018-32 to reduce the flanking street setback to permit the addition to a mobile home at 10435 Rutley Road, Electoral Area "D"</u></p> <ul style="list-style-type: none"> • Corporate report dated December 11, 2018 from Andrea Antifaeff, Planner 1 • DVP Application • Draft DVP 2018-32 <p><u>MOTION FOR CONSIDERATION</u></p> <p>THAT the Fraser Valley Regional District Board issue Development Variance Permit 2018-32 to reduce the flanking street setback from 25 feet (7.6 metres) to 7.9 feet (2.4 metres), to the foundation and 6.9 feet (2.1 metres) to the eave, to facilitate an addition to a mobile home at 10435 Rutley Road, Area "D", subject to consideration of any comments or concerns raised by the public.</p> <p>AND THAT Development Variance Permit 2018-32 replace and supersede Development Variance Permit 2018-20 and Development Variance Permit 2017-12 and that both Development Variance Permits be cancelled and removed from title.</p>	394 - 412
11.4	<p><u>Application for Development Variance Permit 2018-33 to reduce the interior side lot line setback to permit the construction of a dairy barn at Catherwood Road, Electoral Area "G"</u></p> <ul style="list-style-type: none"> • Corporate report dated December 11, 2018 from Julie Mundy, Planning Technician • DVP Application • Draft DVP 2018-33 <p><u>MOTION FOR CONSIDERATION</u></p> <p>THAT the Fraser Valley Regional District Board issue Development Variance Permit 2018-33 for the property at 9518 Catherwood Road, Electoral Area "G", to reduce the interior side lot line setback from 30.0 metres (98.4 feet) to 9.0 metres (29.5 feet), measured clear to sky, to facilitate the construction of a cattle barn, subject to consideration of any comments or concerns raised by the public.</p> <p>AND THAT Development Variance Permit 2018-33 replace and supersede Development Variance Permit 2018-25 and that Development Variance Permit 2018-25 be removed from title.</p>	413 - 430
11.5	<p><u>Special Event – REVEL Race Chilliwack Marathon & Half Event, Chilliwack River Valley, Electoral Area "E"</u></p>	431 - 459

- Corporate report dated December 11, 2018 from Louise Hinton, Bylaw Compliance and Enforcement Officer
- Application
- Application Receipt
- Operations Plan
- Traffic Control Plan
- Revel Partnership

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board approve the Class III Special Event Licence No. 2019-01 for the REVEL Race Series Chilliwack Marathon & Half Event to be held on August 17, 2019, subject to the receipt of all required documentation necessary to complete the application;

AND THAT the Fraser Valley Regional District Board waive the requirement for a security fee;

AND FURTHER THAT the Fraser Valley Regional District Board authorize its signatories to execute all legal instruments associated with the Special Event Licence No. 2018-01.

12. ELECTORAL AREA EMERGENCY SERVICES

No Items.

13. OTHER MATTERS

13.1 Grant Application to Northern Development Initiative Trust

460 - 484

- Corporate report dated December 11, 2018 from Barry Penner, Electoral Area Special Projects
- RIS FVRD Draft Proposal

MOTION FOR CONSIDERATION

THAT the Fraser Valley Regional District Board authorize an application to Northern Development Initiative Trust for a grant of up to \$15,000 (75%) and up to \$5,000 (25%) from the Electoral Area Services toward the cost of completing a Connectivity Infrastructure Strategy for improving internet and cell phone service in the Electoral Areas of the FVRD;

AND THAT the Fraser Valley Regional District Board authorize staff to engage Research ICT Solutions to assist in seeking the grant.

14. ADDENDA ITEMS/LATE ITEMS

15. REPORTS BY STAFF

16. REPORTS BY ELECTORAL AREA DIRECTORS
17. PUBLIC QUESTION PERIOD FOR ITEMS RELEVANT TO AGENDA
18. ADJOURNMENT

MOTION FOR CONSIDERATION

THAT the Electoral Area Services Committee Open Meeting of December 11, 2018 be adjourned.

EXCERPT FROM BOARD AND COMMITTEE PROCEDURES BYLAW NO. 1305, 2015

4.10 Elections of the Board Chair and Vice Chair

- 4.10.1 The election of the Chair and Vice-Chair from among the Fraser Valley Regional District Board members will be conducted at the inaugural meeting of the Board following the procedures set out in this section.
- 4.10.2 The call for nominations for the office of Board Chair and Vice Chair shall be conducted by the person responsible for corporate administration or designate.
- 4.10.3 Nominees for the office of Board Chair or Vice Chair must be made by a third party. For greater certainty, a Board Member may not nominate himself or herself for the position of Board Chair or Vice Chair.
- 4.10.4 Nominees must consent to be nominated and to stand for election to office as Board Chair or Vice Chair. A nominee may be nominated in absentia by agreeing in writing to the nomination.
- 4.10.5 The person responsible for corporate administration shall call first for nominations for Board Chair, and shall then call for nominations for Board Chair a second and third time.
- 4.10.6 If only one nominee for Board Chair is nominated for the office of Board Chair that person is declared elected by acclamation by the person responsible for corporate administration or designate.
- 4.10.7 If more than one nominee is nominated for the office of Board Chair, then an election by voting must be held, and voting must be conducted by secret ballot.
- 4.10.8 Prior to the vote being conducted, persons running for office of Board Chair shall be afforded the opportunity to address the Board for one (1) minute prior to the vote on the first ballot being taken.
- 4.10.9 If there is a tie vote between two or more persons with the most votes, the persons who are tied remain in the election for office of Board Chair, and the person responsible for corporate administration or designate, must continue to conduct votes to break the tie until a person emerges with the most votes who shall then be declared to office by the person responsible for corporate administration or designate.

- 4.10.10 Prior to a subsequent ballot(s) being voted upon for Board Chair, persons who are tied shall be afforded the opportunity to address the Board for one additional one (1) minute followed by a (10) ten minute recess between each vote where more than one vote is required.
- 4.10.11 In the case of an election by voting, the counting of ballots will be conducted by the person responsible for corporate administration or designate, together with the person responsible for financial administration or delegate. The outcome of the ballot count will be announced to the Board by the corporate officer responsible for corporate administration or designate. For greater certainty the person with the most votes will be declared to office.
- 4.10.12 Immediately after the person with the most votes has been declared to office, the ballots must be destroyed by the person responsible for corporate administration or designate. For greater clarity, a Board resolution to destroy the ballots is not required.
- 4.10.13 The election for Vice Chair of the Board shall be undertaken in the same manner as the election for Board Chair.

To: CAO for the Electoral Area Services Committee

Date: 2018-12-11

From: Graham Daneluz, Deputy Director of Planning & Development

File No: 3015-20-2018-08

Subject: Non-Farm Use Application for Cannabis Production - 58551 Dent Rd, Laidlaw, Area "B"

RECOMMENDATION

THAT the FVRD Board forward the Non-Farm Use application for a cannabis production facility at 58551 Dent Road, Electoral Area "B" to the Agricultural Land Commission with support subject to an offer and commitment from the landowner to register a covenant in favour of FVRD regarding the use of the building, lighting, and odours as described in the Report dated 2018-12-11.

STRATEGIC AREA(S) OF FOCUS

Foster a Strong & Diverse Economy

BACKGROUND

Proposal Description

Mr. Michael Watson, the owner of the property at 58551 Dent Road in Laidlaw, Area "B", proposes to construct a facility for the growing and production of medical marihuana and cannabis on the property. He has applied for a Non-Farm Use in the Agricultural Land Reserve to facilitate this development.

The facility would consist of a two storey building with a footprint of about 17,350 square feet (98.6 feet by 176' feet) and a total floor area of about 35,000 square feet. Cannabis plants would be started, grown to maturity and processed within the building, which would also include office space, a storage vault and miscellaneous other rooms.

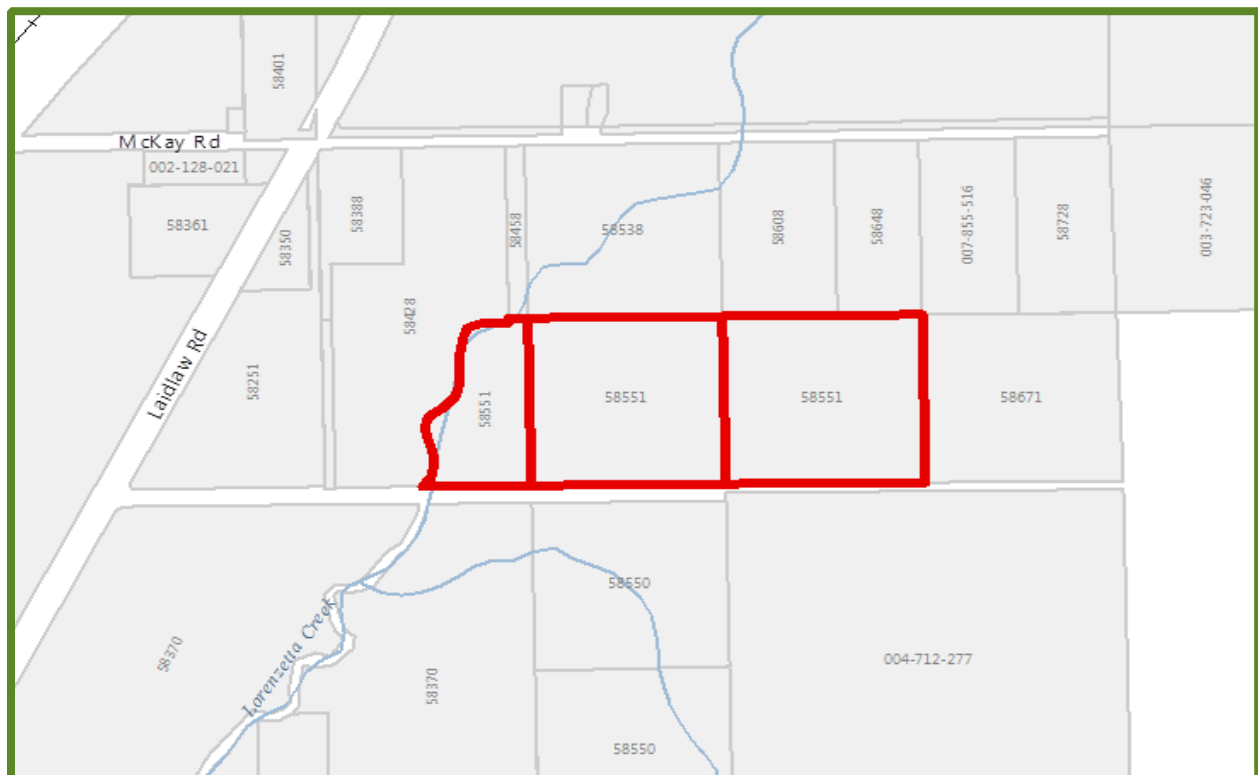
The property is a 19.6 acre parcel farm parcel within the Agricultural Land Reserve. Mr. Watson also owns the adjacent parcels to the east and west. The three parcels together amount to 23.7 acres and function as a single farm unit. The cannabis facility would occupy about 0.5 acres of the farm.

The property is currently used for raising beef cows and horses and producing hay crops. According to the applicant, an old barn on the property was recently used for the production of medical marihuana under a federal license, but this activity has now ceased.

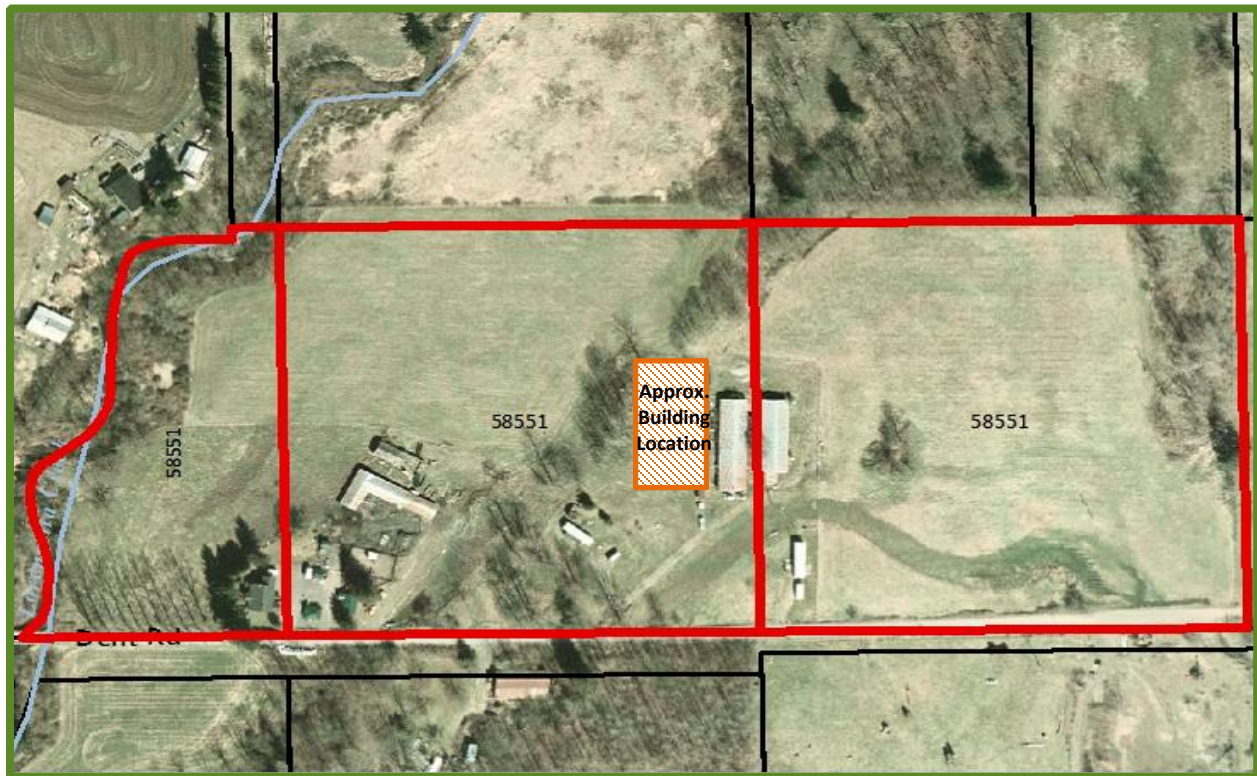
PROPERTY DETAILS			
Electoral Area	B		
Address	58551 Dent Road		
PID	011-945-354 and 011-945-311 (primary), 011-945-303 (extra)		
Folio	732.06228.000		
Lot Size	19.16 acres and 3.97 acres		
Owner	Michael Watson	Agent	NRG Consulting Ltd.
Current Zoning	Agricultural (Ag-1)	Proposed Zoning	No change
Current OCP	Agricultural (AG)	Proposed OCP	No change
Current Use	Farm	Proposed Use	Cannabis Production
Development Permit Areas	n/a		
Hazards	Fraser River Floodplain, Lorenzetta Creek floodplain		
Agricultural Land Reserve	Yes		

ADJACENT ZONING & LAND USES			
North	^	Agricultural (Ag-1) / Farm	
East	>	Agricultural (Ag-1) / Farm	
West	<	Agricultural (Ag-1) / Farm	
South	v	Agricultural (Ag-1) / Farm	

NEIGHBOURHOOD MAP



PROPERTY MAP

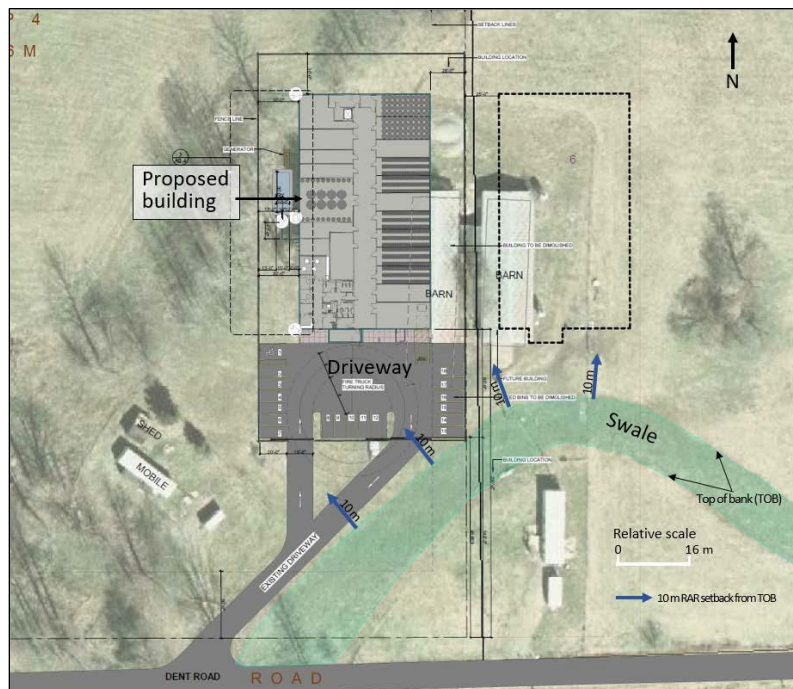


DISCUSSION

The location of the proposed cannabis production facility is shown on the Property Map above. Additional details are shown in the site plan at right.

The proposed industrial-style building would be constructed as a category 'F - Factory Industrial Low Hazard Occupancy' under the BC Building Code.

The applicant has provided reports by qualified professionals to demonstrate the feasibility of the proposed development, including geohazard, soils, riparian and code



compliance reports.

Agricultural Land Reserve Regulation

Local governments are not able to prohibit farm uses on lands within the Agricultural Land Reserve (ALR).

Before July 13, 2018, the production of medical marihuana was classified as a farm use in the ALR without restriction.

On July 13, 2018, the Agricultural Land Commission made changes to the *Agricultural Land Reserve Regulation (ALR Reg)* that greatly scaled-back the type of cannabis production that is permitted as a farm use in the ALR. The production of cannabis is now defined as a farm use only if it is:

1. produced in a field; or,
2. produced in a structure that:
 - i. has a base consisting entirely out of soil, or
 - ii. was under construction, or was constructed, before July 13/18 for the purpose of growing crops inside it.

As a result of this change, Mr. Watson must now apply to the Agricultural Land Commission, through the FVRD, to allow the proposed cannabis production facility.

The storing, packing, preparing and processing of cannabis is permitted within the ALR as long as at least 50% of the processed cannabis is produced on the farm.

Zoning

The subject property is zoned Agricultural (Ag-1) under Zoning Bylaw No. 85. Medical Marihuana Grow Operation– defined as, “the cultivation, growth, storage, distribution, testing or research of marihuana for medical purposes as lawfully permitted and authorized under the applicable federal or provincial law”– is permitted in the Ag-1 zone.

At the time the zoning provisions regarding medical marihuana were adopted, the production of marihuana for medical purposes was a farm use under the *ALR Regulation* and local governments were unable to prohibit or significantly regulate it within the ALR. The change in the *ALR Regulation* described above gives local governments more latitude to prohibit or regulate cannabis production facilities that are not farm uses under the *ALR Regulation*.

Health Canada Licensing

The applicant has submitted correspondence from Health Canada to demonstrate that he is in the process of obtaining a license from the Office of Medical Cannabis for production medical marihuana under the federal *Access to Cannabis for Medical Purposes Regulation*. However, Health Canada will not issue the license until construction on the facility is completed. If the Non-Farm use is approved,

building permitting will be coordinated with Health Canada licensing to ensure that the final building inspection occurs only once the federal license has been granted.

Community Impacts

Cannabis production facilities can have negative impacts on the surrounding community, including 'light spill' from security lighting and unpleasant odour emissions. Implications of the introduction of an industrial-style building in rural farm communities should also be considered.

Light & Odour

Generally, the location of the proposed facility should minimize nuisance to adjacent properties. The facility would be at least 200 metres from nearest existing residence not on land owned by the applicant. There are no schools, parks or other sensitive land uses in the Dent Road area.

Industrial-style Building

Two storey industrial-style buildings surrounded by security fencing may be seen by residents as incompatible with the rural-agricultural aesthetics of the area. On the other hand, large agricultural buildings have similar visual impacts and are accepted in farm communities. A rendering of the proposed building is shown below.



An additional concern about the use of the building may arise if the cannabis production stops. Two storey industrial buildings are not commonly used on farms and they are conducive to a wide range of uses not permitted by the zoning bylaw or the *ALR Regulation*. This could result in difficult enforcement challenges if cannabis production ceases and is replaced with non-conforming uses.

Covenant

To address the potential community impacts described above, the Board may wish to request a covenant from the applicant requiring that:

1. exterior lighting is designed by a qualified professional to avoid light-spill onto adjacent properties and light pollution to the sky (i.e. maintain a dark sky);

2. the cannabis production facility be fitted with odour emission controls designed by a registered professional; and,
3. the use of the building be restricted to cannabis production facility and farm uses that accord with both FVRD Zoning Bylaw No. 85 and the *ALR Regulation*; and, provide a mechanism to recover all costs associated with any enforcement activities related to non-permitted use of the building.

Process

Non-farm Use applications are submitted by the applicant to the ALC Application Portal and the application is send directly to FVRD. The process is shown in the flowchart below.

The FVRD Board may either:

1. Forward the application - with 'support' or any other comments it deems appropriate - to the ALC (by way of an authorizing resolution) so that the Commission may make a decision on it; or,
2. Do not forward the application to the ALC in which case the application will not proceed.

If the application proceeds to the ALC and it is approved, FVRD may then issue a building permit for the construction. Flood protection, setbacks and building code matters will be addressed through the building permit process.

COST

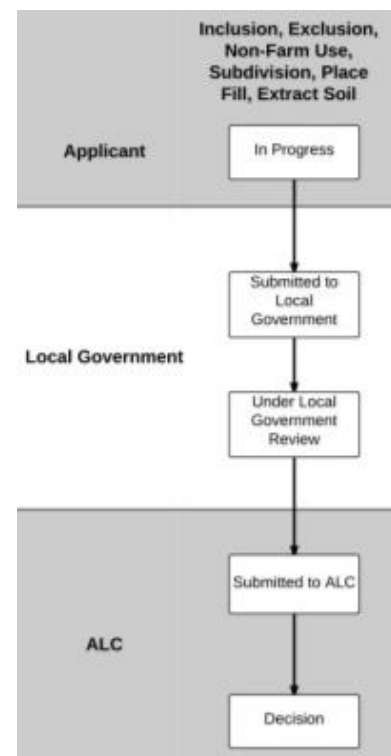
The applicant has paid an application fee of \$1500. FVRD will retain \$300 and forward \$1200 to the ALC.

CONCLUSION

Staff recommend that the FVRD Board resolve to forward the application to the ALC with support subject to the offer and registration of a covenant to address lighting, odour, and character and use of the building. The proposed land use is consistent with the zoning bylaw. The location is distant from schools, parks and other sensitive uses. The nearest residence (not owned by the applicant) is over 200 meters away. Impacts to the community can be mitigated through good design.

Alternatives

If the Board wishes to consider alternatives to the staff recommendation, it might:



1. Do nothing. Do not forward the application to the ALC. The application will not proceed any further. No resolution is needed for this. However, if a resolution is desired the Board may resolve to deny forwarding the application to the ALC.
2. Resolve to forward the application to the ALC without conditions. In this case, the Board could consider a resolution such as:

THAT the FVRD Board forward the Non-Farm Use application for a cannabis production facility at 58551 Dent Road to the Agricultural Land Commission.

COMMENTS BY:

Margaret Thornton, Director of Planning & Development Reviewed and supported. Staff intend to provide a comprehensive report in early 2019 to the Electoral Area Services Committee (EASC) to review the current status of legislation regulating cannabis production, and obtain input from EASC members on policy direction for cannabis uses. This application was submitted prior to a comprehensive policy being developed by the FVRD, and is being forwarded to EASC on an individual basis.

Mike Veenbaas, Director of Financial Services No further financial comments.

Paul Gipps, Chief Administrative Officer Reviewed and supported



Provincial Agricultural Land Commission - Applicant Submission

Application ID: 58010

Application Status: Under LG Review

Applicant: Michael Watson

Agent: NRG Consulting Ltd.

Local Government: Fraser Valley Regional District

Local Government Date of Receipt: 09/20/2018

ALC Date of Receipt: This application has not been submitted to ALC yet.

Proposal Type: Non-Farm Use

Proposal: Mr. Watson is applying for non-farm use so that he will be able to construct a building with a 17000 SF footprint on his property. The proposed structure would be located at the site of the old manure pit and existing MMAR Act facility described in previous sections of this proposal. The proposed structure would be used as a production facility for medical marijuana and proposes to be ACMPR and Cannibis Act compliant. The building currently in this location would be removed as it is non-compliant to the new ACMPR standards, and is no longer appropriate for use as a production facility according to Health Canada's regulations. A successful application would achieve the realization of a six year long project goal for Mr. Watson and his family. This long-time farming family is ready and eager to enter into the new and exciting agricultural business of producing plants for medical use. The Watson family has invested a great deal of time and money into this project. In 2014 they went to great lengths to ensure their land was appropriately zoned for these non-farm use purposes, in hopes they might someday be able to run a regulated, legal, and financially rewarding business on their land. They have participated in many discussions with the ALC as far back as 2012 and have always believed that cannabis is as much a plant as any other crop being farmed in this area.

Agent Information

Agent: NRG Consulting Ltd.

Mailing Address:

16757 61 Avenue

Surrey, BC

V3S 1W2

Canada

Parcel Information

Parcel(s) Under Application

1. **Ownership Type:** Fee Simple
Parcel Identifier: 011-945-311

Legal Description: Lot 7, section 20, township 4, range 27, west of the sixth meridian, New Westminster district plan 1447K

Parcel Area: 4 ha

Civic Address: 58551 A Dent Road, Laid Law

Date of Purchase: 09/01/2000

Farm Classification: Yes

Owners

1. **Name:** Michael Watson

Address:

58551 Dent Road
Laid Law, BC
V0X 1L2
Canada

2. **Ownership Type:** Fee Simple

Parcel Identifier: 011-945-354

Legal Description: LOT 8 EXCEPT: PART SUBDIVIDED BY PLAN 23054, SECTION 20 TOWNSHIP 4 RANGE 27 WEST OF THE SIXTH MERIDIAN NEW WESTMINSTER DISTRICT PLAN 1447K

Parcel Area: 1.6 ha

Civic Address: 58551 Dent Road, Laid Law

Date of Purchase: 09/01/2000

Farm Classification: Yes

Owners

1. **Name:** Michael Watson

Address:

58551 Dent Road, Laid Law
Laid Law, BC
V0X 1L2
Canada

3. **Ownership Type:** Fee Simple

Parcel Identifier: 011-945-303

Legal Description: LOT 6 SECTION 20 TOWNSHIP 4 RANGE 27 WEST OF THE SIXTH MERIDIAN NEW WESTMINSTER DISTRICT PLAN 1447K

Parcel Area: 4 ha

Civic Address: 58661 Dent Road, Laid Law

Date of Purchase: 09/01/2000

Farm Classification: Yes

Owners

1. **Name:** Michael Watson

Address:

58551 Dent Road,
Laid Law, BC
V0X 1L2
Canada

Current Use of Parcels Under Application

1. Quantify and describe in detail all agriculture that currently takes place on the parcel(s).

Parcel PID 011-945-311 (58551 A): This parcel of land is owned and operated by Michael Watson, who resides on the adjacent parcel of land to the west and also owns the parcel of land to the east. It is noted that Mr. Watson and his family have been living and farming in this area for over 80 years. The parcel under application here is approximately 4 ha (10 acres) in size. Approximately 2 ha (5 acres) of the land is currently under hay production, and is sometimes occupied by Mr. Watson's Black Angus cows or horses. The property yeilds one or two cuts per year to create round hay bales. When the last cut has been made in either late summer or early fall, Mr. Watson allows his livestock to free graze on the parcel until winter sets in. Another 1 ha (2.5 acres) of this parcel is overgrown with trees and berries, making it unsuitable for agricultural use. 0.86 ha (approximately 20% of the parcel) is currently covered by many small buildings and structures. There are 2 large hog barns which are no longer in use for hogs, one to the east and one closer to the western border of the parcel. The barn in the eastern section is approximately 5000 SF and the other is approximately 7000 SF. The remaining structures include a chute for cows, a chicken coop, a pump house, a garage, a paddock, and a mobile home. There are also driveways and ditches included in this 20%. The final 5% of the parcel (0.14 ha) is comprised of an old manure pit that has been reclaimed. This 15000SF area is no longer acceptable for agricultural purposes given it's previous use. This is the area in which Mr. Watson is proposing to construct a building for non-farm use.

2. Quantify and describe in detail all agricultural improvements made to the parcel(s).

In 2009, Mr. Watson leased the hog barn located in the eastern section of this parcel to his family friend, Robert Hill. Mr. Hill used the space to produce medical marijuana licensed under the MMAR Act within the Health Canada guidelines. Due to recent health concerns and a diagnosis of MS, Mr. Hill has had to stop his business practices and is no longer able to use this space. In 2013, Mr. Watson hired a geotechnical engineer (Fraser Valley Geotech) to oversee the process of reclaiming the 15000SF manure pit on this parcel. Mr. Watson was able to acquire a hazard assessment for the area and then remediate this portion of the parcel. As well, at this time Mr. Watson was told that the access road to the hog barns built up of materials that were sourced on site in the 1970's.

3. Quantify and describe all non-agricultural uses that currently take place on the parcel(s).

There are no non-agricultural uses that currently take place on this parcel, other than what remains of the MMAR Act facility.

Adjacent Land Uses

North

Land Use Type: Agricultural/Farm

Specify Activity: Not being used for any current form of agriculture. It is overgrown and dormant. Owner is Charlie Chapman 58538 Mckay Road 604-869-7439

East

Land Use Type: Agricultural/Farm

Specify Activity: For Hay production/Cows. Also owned by Michael Watson.

South

Land Use Type: Agricultural/Farm

Specify Activity: Currently dormant, but was previously used for raising of hogs.

West

Land Use Type: Agricultural/Farm

Specify Activity: For Hay production/Cows. Primary residence, also owned by Michael Watson.

Proposal

1. How many hectares are proposed for non-farm use?

0.2 ha

2. What is the purpose of the proposal?

Mr. Watson is applying for non-farm use so that he will be able to construct a building with a 17000 SF footprint on his property. The proposed structure would be located at the site of the old manure pit and existing MMAR Act facility described in previous sections of this proposal. The proposed structure would be used as a production facility for medical marijuana and proposes to be ACMPR and Cannabis Act compliant. The building currently in this location would be removed as it is non-compliant to the new ACMPR standards, and is no longer appropriate for use as a production facility according to Health Canada's regulations. A successful application would achieve the realization of a six year long project goal for Mr. Watson and his family. This long-time farming family is ready and eager to enter into the new and exciting agricultural business of producing plants for medical use. The Watson family has invested a great deal of time and money into this project. In 2014 they went to great lengths to ensure their land was appropriately zoned for these non-farm use purposes, in hopes they might someday be able to run a regulated, legal, and financially rewarding business on their land. They have participated in many discussions with the ALC as far back as 2012 and have always believed that cannabis is as much a plant as any other crop being farmed in this area.

3. Could this proposal be accommodated on lands outside of the ALR? Please justify why the proposal cannot be carried out on lands outside the ALR.

Mr. Watson does not own any lands outside of the ALR, therefore, he would be unable to accommodate this proposal elsewhere.

4. Does the proposal support agriculture in the short or long term? Please explain.

Mr. Watson believes that this proposal will support agriculture in the long term, because having a successful farming family be able to continue to be productive on their own land is good for any farming community. Mr. Watson intends to continue hay production and the raising of livestock, as his ancestors have for decades. However, as other farmers move toward high tech dairy barns, 400 foot long chicken houses, and 100,000 SF hog barns, he feels these practices aren't where his family wants to be. In order to keep his farm "a farm" he needs to be able to find a way to continue to exist in the modern world. Growing plants for medical use will allow Mr. Watson to continue his family's farming traditions for years to come, while providing an opportunity for financial stability.

Applicant Attachments

- Agent Agreement - Mr.
- Other correspondence or file information - Health Canad Confirmation of Readiness for Licence
- Other correspondence or file information - Destruction Equipment BINPAK
- Professional Report - Building Code Compliance
- Other correspondence or file information - NRG Consulting supporting Information
- Proposal Sketch - 58010
- Professional Report - Geo Report
- Professional Report - Hazard Report
- Other correspondence or file information - Petition support of facility by community
- Other correspondence or file information - Existing permit to cultivate
- Certificate of Title - 011-945-311
- Certificate of Title - 011-945-354
- Certificate of Title - 011-945-303

ALC Attachments

None.

Decisions

None.

TITLE SEARCH PRINT

2018-09-14, 14:52:51

File Reference:

Requestor: Allan Tunbridge

Declared Value \$ 126750

CURRENT INFORMATION ONLY - NO CANCELLED INFORMATION SHOWN

Land Title District

Land Title Office

NEW WESTMINSTER

NEW WESTMINSTER

Title Number

From Title Number

BA461227

BP214265

Application Received

2006-01-31

Application Entered

2006-02-06

Registered Owner in Fee Simple

Registered Owner/Mailing Address:

MICHAEL CORNELIUS WATSON, BULK FUEL SALES MANAGER
363 - 1755 ROBSON STREET
VANCOUVER, BC
V6G 3B7**Taxation Authority**

New Westminster Assessment District

Description of Land

Parcel Identifier:

011-945-303

Legal Description:

LOT 6 SECTION 20 TOWNSHIP 4 RANGE 27 WEST OF THE
SIXTH MERIDIAN NEW WESTMINSTER DISTRICT PLAN 1447K**Legal Notations**THIS CERTIFICATE OF TITLE MAY BE AFFECTED BY THE AGRICULTURAL LAND
COMMISSION ACT, SEE AGRICULTURAL LAND RESERVE PLAN NO. 56
DEPOSITED SEPTEMBER 11TH, 1974.**Charges, Liens and Interests**

Nature:

STATUTORY RIGHT OF WAY

Registration Number:

D50139

Registration Date and Time:

1968-07-29 13:08

Registered Owner:

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

Remarks:

INTER ALIA
PLAN 34112

Nature:

MORTGAGE

Registration Number:

CA2242146

Registration Date and Time:

2011-10-24 11:56

Registered Owner:

THE TORONTO-DOMINION BANK

TITLE SEARCH PRINT

File Reference:

Declared Value \$ 126750

2018-09-14, 14:52:51

Requestor: Allan Tunbridge

Duplicate Indefeasible Title NONE OUTSTANDING**Transfers** NONE**Pending Applications** NONE

TITLE SEARCH PRINT

2018-09-14, 14:52:36

File Reference:

Requestor: Allan Tunbridge

Declared Value \$ 136500

CURRENT INFORMATION ONLY - NO CANCELLED INFORMATION SHOWN

Land Title District

Land Title Office

NEW WESTMINSTER

NEW WESTMINSTER

Title Number

From Title Number

BA461229

BP214267

Application Received

2006-01-31

Application Entered

2006-02-06

Registered Owner in Fee Simple

Registered Owner/Mailing Address:

MICHAEL CORNELIUS WATSON, BULK FUEL SALES MANAGER
363 - 1755 ROBSON STREET
VANCOUVER, BC
V6G 3B7**Taxation Authority**

New Westminister Assessment District

Description of Land

Parcel Identifier:

011-945-354

Legal Description:

LOT 8 EXCEPT: PART SUBDIVIDED BY PLAN 23054, SECTION 20
TOWNSHIP 4 RANGE 27 WEST OF THE SIXTH MERIDIAN NEW WESTMINSTER DISTRICT
PLAN 1447K**Legal Notations**THIS CERTIFICATE OF TITLE MAY BE AFFECTED BY THE AGRICULTURAL LAND
COMMISSION ACT, SEE AGRICULTURAL LAND RESERVE PLAN NO. 56
DEPOSITED SEPTEMBER 11TH, 1974.**Charges, Liens and Interests**

Nature:

MORTGAGE

Registration Number:

CA727861

Registration Date and Time:

2008-03-19 10:02

Registered Owner:

THE TORONTO-DOMINION BANK

TITLE SEARCH PRINT

2018-09-14, 14:52:36

File Reference:

Requestor: Allan Tunbridge

Declared Value \$ 136500

Nature:	MORTGAGE
Registration Number:	CA4245668
Registration Date and Time:	2015-02-23 13:13
Registered Owner:	RELIABLE MORTGAGES INVESTMENT CORP. INCORPORATION NO. 476257
Remarks:	INTER ALIA

Duplicate Indefeasible Title	NONE OUTSTANDING
-------------------------------------	------------------

Transfers	NONE
------------------	------

Pending Applications	NONE
-----------------------------	------

TITLE SEARCH PRINT

2018-09-11, 14:54:50

File Reference:

Requestor: Allan Tunbridge

Declared Value \$126750

****CURRENT INFORMATION ONLY - NO CANCELLED INFORMATION SHOWN******Land Title District**

Land Title Office

NEW WESTMINSTER

NEW WESTMINSTER

Title Number

From Title Number

BA461228

BP214266

Application Received

2006-01-31

Application Entered

2006-02-06

Registered Owner in Fee Simple

Registered Owner/Mailing Address:

MICHAEL CORNELIUS WATSON, BULK FUEL SALES MANAGER
363 - 1755 ROBSON STREET
VANCOUVER, BC
V6G 3B7**Taxation Authority**

New Westminister Assessment District

Description of Land

Parcel Identifier:

011-945-311

Legal Description:

LOT 7 SECTION 20 TOWNSHIP 4 RANGE 27 WEST OF THE
SIXTH MERIDIAN NEW WESTMINSTER DISTRICT PLAN 1447K**Legal Notations**THIS CERTIFICATE OF TITLE MAY BE AFFECTED BY THE AGRICULTURAL LAND
COMMISSION ACT, SEE AGRICULTURAL LAND RESERVE PLAN NO. 56
DEPOSITED SEPTEMBER 11TH, 1974.**Charges, Liens and Interests**

Nature:

COVENANT

Registration Number:

BH259643

Registration Date and Time:

1994-07-11 12:43

Registered Owner:

REGIONAL DISTRICT OF FRASER-CHEAM

Remarks:

SECTION 215

LAND TITLE ACT

Nature:

MORTGAGE

Registration Number:

CA727863

Registration Date and Time:

2008-03-19 10:03

Registered Owner:

THE TORONTO-DOMINION BANK

TITLE SEARCH PRINT

2018-09-11, 14:54:50

File Reference:

Requestor: Allan Tunbridge

Declared Value \$126750

Nature:	MORTGAGE
Registration Number:	CA4245668
Registration Date and Time:	2015-02-23 13:13
Registered Owner:	RELIABLE MORTGAGES INVESTMENT CORP. INCORPORATION NO. 476257
Remarks:	INTER ALIA

Duplicate Indefeasible Title	NONE OUTSTANDING
-------------------------------------	------------------

Transfers	NONE
------------------	------

Pending Applications	NONE
-----------------------------	------

AGENT AUTHORIZATION LETTER

I (we) Michael Watson
Printed/typed name(s) of landowner(s)

hereby appoint NAG CONSULTING to
Printed/typed name of agent

make application to the Agricultural Land Commission as agent on my/our behalf with respect to the following parcel (s): Insert legal description for each parcel under application

011-945-311
58551 A DENT ROAD

LOT 7, SECTION 20, TOWNSHIP 4,
RANGE 27, WEST OF 6th MERIDIAN,
NEW WESTMINSTER, DISTRICT PLAN
1447K

I CRAIG GARDEN understand that as
Printed/typed name of agent

agent, I am required to ensure that all landowners are provided with information being submitted to and received from the Agricultural Land Commission.

Signature(s) of landowner(s):

 Michael Watson 09/01/18
Signature Printed Name Date

Signature Printed Name Date

Mr. Michael Watson
58551A Dent Road
Laidlaw, BC

May 5, 2018
(revised September 18, 2018)

Attention: Mr. Michael Watson

Regarding: Geotechnical and Hazard Assessment Report
Proposed Agricultural Building
58551A Dent Road, Laidlaw, Project: 43921-01

1.0 INTRODUCTION

Valley Geotechnical Engineering Services Ltd. (Valley Geo) has been retained by Mr. Michael Watson to conduct a Hazard Assessment Report for the proposed agricultural storage building. This report summarizes our work to date and presents recommendations pertinent to the proposed building at the above site. This report supersedes our November 14, 2013 report previously issued.

This report has been prepared in accordance with the Fraser Valley Regional District (FVRD) guidelines for geotechnical reports and hazard assessment, pursuant to the Section 56 of the Community Charter and the APEGBC "Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in BC (Revised May 2010)." This report may be used by the FVRD Approving Officer for building permit approval.

Based on our analyses we confirm that the land can be used safely for the use intended provided the recommendations presented in this report are completed. We note that this report only addresses the hazards and presents recommendations for the above proposed development.

2.0 INFORMATION REVIEWED

Valley Geo has reviewed the following documents in preparation of this report:

- FVRD online topographical and hazard mapping system
- Fraser Valley Regional District, Bylaw No. 0681, 2005, A Floodplain Management Bylaw Pursuant to Section 910 of the Local Government Act
- Fraser Valley Regional District, Report dated January 2007, November 2006 Flood Damage Assessment

- British Columbia Geologic Hazards Workshop February 20 & 21 of 1991, November 1993. Hazard Acceptability Thresholds for Development Approvals by Local Government, Dr. Peter W. Cave Director of Planning of the Regional District of Fraser-Cheam.
- Took Structural Laboratory Inc. Report dated January 8, 1991, Proposed Open Sand Pit Operation at 5871 Dent Road, Hope, B.C.
- Took Structural Laboratory Inc. Report dated September 28, 1994, Proposed 40ft x 60ft x 18ft high steel building for farm machinery storage at 58671 Dent Road, Laidlaw, B.C.
- Took Engineering Inc. Report dated February 22, 2001, Flooding Hazard Evaluation for 58510 Laidlaw Road, Laidlaw, B.C.
- Thurber Engineering Ltd. Report dated July 10, 1989, Hagkull Property, 58278 McKay Road, Laidlaw, B.C.
- Thurber Engineering Ltd. Report dated September 7, 1995, Geotechnical Evaluation of Slope Stability, 58728 McKay Road, Laidlaw, B.C.
- Thurber Engineering Ltd. Report dated April 16, 2001, 58751 McKay Road, Laidlaw, BC Due-diligence Geological Hazard Assessment
- Thurber Engineering Ltd. Report dated June 11, 2013, Barn Footing and Proposed House, Pump House and Powerhouse, 58751 McKay Road, Laidlaw, BC, Geological Hazard Assessment
- Hardy Associates Ltd. Report dated May, 1986, Review of Geological and Snow Avalanche Hazards for The Official Community Plan for Electoral Areas "B" and "C", Upper Fraser Valley, B.C.
- Hay & Company Consultants, Report dated November 15, 2005, Site-Specific Hazard Assessment for the Property at 58480 Laidlaw Road
- Hay & Company Consultants, Report dated November 21, 2005, Site-Specific Hazard Assessment for the Property at 58470 Laidlaw Road
- Wedler Engineering Civil Consultants, Report dated October 9, 2008, Site Specific Exemption from Bylaw 0681 Regarding Floodproofing for Proposed Livestock Barn @ 58251 Laidlaw Rd. – Lot 1, District Lot 8, Section 19, Township4, Land District 3, Plan LMP 35026

3.0 PROPOSED CONSTRUCTION

An agricultural storage building is purposed to be constructed at the at the mid-point of the east property line. The building will be two floors high and rectangular in shape with dimensions of 24.7m wide 54.5m long and 7.6m high. A portion of the building is proposed to be located over an existing manure pit which has been filled in with structural material tested and approved by Valley Geo.

See Appendix A for Building Drawings and Site Location Plan.

4.0 SITE INFORMATION

Valley Geo has completed a desktop review, aerial photo review, soil investigation, detailed site reconnaissance of the site and surrounding area. We have also interviewed Mr. Michael Watson, current owner, of the subject property. The following subsections summarize the relevant findings and observations.

4.1 Site Description

The subject site is located within Electoral Area B within the FVRD and has the following civic address and legal description:

- 58551A Dent Road
- Lot 7, Section 20, Township 4, Range 27, Meridian 6, New Westminster District, Plan Meridian W6, Except Plan 23054.

The subject site is bounded by rural agricultural properties to the north, west, and east and Dent Road to the south. The property is 3.9Ha with approximate dimensions of 198m both north-south and west-east. The majority of the site is free of major vegetation except the north-west corner adjacent to Lorenzetta Creek located outside of the property. Several barns and houses are located on the site.

The property slopes slightly to the west between the approximate elevations of 31m and 28m according to the available online contour and elevation information. A shallow channel or depression is located at the east property line. This channel appears to be part of a tributary to Lorenzetta Creek. It is our understanding that this channel receives flow during the winter months but is otherwise dry.

The proposed building area elevation is approximately 29.5m and within a local high point elevated approximately 2.5m from the lowest point to the west of the property, 1.5m higher than Dent Road, and 1m above the bottom of the depression to the east. It should be noted that a survey has not yet been completed and the building site elevation requires confirmation from a surveyor.

The proposed building area is subject to a Fraser River Flood Construction Level (FCL) of 30.1m and 3m above the natural boundary of Lorenzetta Creek. In addition, potential hazards from alluvial fan and localized flooding has been identified by the FVRD.

4.2 Surrounding Topography and Hydrology

The subject site is located in a relatively flat area between the Fraser River and a mountain. The Fraser River and toe of the mountain are located approximately 800m and 500m, respectively, from the proposed building area.

Laidlaw Road is located to the west of the subject site. Laidlaw road is generally elevated slightly above the surrounding grade at elevations between 28.7 to 29.4m (Took, May 2001). Several culverts and bridges exist for Laidlaw Road for local drainage and creeks.

From review of the available contour information the lower mountain slopes are approximately 20% with steeper slopes at the higher reaches of the mountain. From our site observations it appears that historically there may have been some localized slope failures. Several older logging roads and cuts exist at the mountain.

Lorenzetta Creek is approximately 185m from the proposed building area at its closest point. The creek originates from the mountain slopes to the north-east with its apex at the toe of the mountain approximately 950m east from the building area. It appears that historically this creek split into several channels just past the apex before re-joining and flowing to the south-west. Currently the creek is confined to a single channel and is protected with local private dykes and rip-raped banks. We estimate that the proposed building area is approximately 3m above the natural boundary. A tributary joins Lorenzetta Creek approximately 390m southwest from the building area. This tributary exists on the subject property as the above shallow depression.

See Appendix B for Overall Site Plan.

4.3 Site and Surrounding Area Soil Stratigraphy

Valley Geo completed a test pit investigation on October 7, 2013 with a track mounted excavator. Three test pits (designated as TP1 and TP3) were excavated to depths ranging from 1.7m to 1.9m below the existing grade.

The subsurface conditions encountered generally consist of:

- Sand and silt fill up to 0.8m thick underlain by
- Moist, medium stiff to medium dense sandy silt, up to 1.2m thick underlain by
- Moist, very dense, sandy gravel to depths explored

An exception to the above was TP 3 where topsoil over clayey silt was encountered. No free water was encountered during the test pit investigation.

It is expected that the soil conditions on the mountain consist of a surficial topsoil layer over glacial till and bedrock. No geology maps were available for this area.

See Appendix C for Test Pit Location Plan and Test Pit Logs.

4.4 Aerial Photo Review

The subject site and surrounding area's historical aerial photographs, provided by the UBC geography department, were reviewed in preparation of this report. The highlights from the review are as follows:

- Possible debris deposition at apex of Lorenzetta Creek (1951& 1954), well away from this site
- A slope failure on the upper mountain slopes to the east (1973)
- Escarpment in upper reaches of Lorenzetta Creek (1979)
- Lorenzetta Creek diked and confined to single channel (1983)

A detailed tabulated summary of this review is presented in Appendix D attached.

4.5 Interviews

An interview was undertaken with Michael Watson the current homeowner and applicant. It was identified that the proposed building area has never flooded in recent history. The fields

surrounding the building area, which are lower, flood regularly during heavy rainfalls and high flow events. The channel to the east (part of Lorenzetta Tributary) does receive flow during the winter months.

4.6 Aerial Review

A helicopter reconnaissance was completed by Mr. Narayan Abhyankar, P.Eng. as part of our geotechnical preliminary review for 58751 McKay Road. The mountain and creek slopes were reviewed for evidence of instability and recent failures. Steep slopes were observed with several areas that may have sloughed in recent history.

5.0 HAZARDS ASSESSMENT & MITIGATION MEASURES

From our review of the site topography and soil conditions, we conclude that the primary hazards that may affect the proposed building are inundation by flood waters, mountain stream erosion and avulsion, debris flow, and debris flood. Protective measures and covenants are required to allow for the safe construction of the agricultural storage building.

The following sections discuss the applicable hazards listed in the Dr. Caves' *Hazard Acceptability Thresholds for Development Approvals by Local Government* report, dated November, 1993 along with their probability of occurrence.

5.1 Inundation by Flood Waters

The site is subject to a minimum FCL for protection from inundation from flood water from the Fraser River and Lorenzetta Creek. The FCL for the Fraser River is 30.1m (including freeboard) which is estimated to be slightly above the proposed building area grade. The FCL for Lorenzetta Creek is 3m above its natural boundary. At the time of this report the natural boundary elevation of the creek is unknown.

The building area is estimated to be approximately 3m above the natural boundary of Lorenzetta Creek. However, regardless of the creek natural boundary elevations we confirm that the building is adequately protected with the Fraser River FCL of 30.1m. The Fraser River FCL is above the high point of Laidlaw Road. The slope beyond Laidlaw Road is to the west and any Lorenzetta Creek flood waters would crest the road before inundating the proposed building. However, as an additional protective measure we are recommending a minimum FCL of 0.30m above the surrounding grade.

The higher of the two above FCL's (Fraser River FCL or 0.3m above grade) governs and is required to be confirmed by a surveyor during construction. *Additional fill will be required below the slab to raise the elevation to the above governing FCL.*

The frost depth is considered adequate for scour protection. Any flood water that would inundate the proposed building area would have very little energy resulting in minimal scour potential.

Provided that the above measures are implemented we estimate the probability of damage to the proposed building from inundation by flood waters to be low (<1:200)

5.2 Mountain Stream Erosion and Avulsion

The building area has been identified by the FVRD as being subject to hazards associated with the Lorenzetta Creek Alluvial Fan. Review of the aerial photo indicated possible alluvial deposition at the toe of the mountain at the creek apex. However, no evidence of deposition was observed within the building area.

As described above, the building area is located within a local high point with low-lying land between the creek and the building. In the event the creek breeches its current banks any deposition would occur in the low-lying area. In addition, our test pit investigation did not encounter any material conducive to alluvial deposition within the upper 1.8m. The sandy silt to clayey silt encountered is a characteristic of slow moving water deposition and may have been placed by the Fraser River during repeated historical flooding events. In addition, the stiff classification indicates that the silt stiffened due to desiccation over a historical time period.

On the basis of the above we estimate the probability of damage to the proposed building from mountain stream erosion of avulsion to be low (<1:500)

5.3 Debris Flows and Debris Torrents

During our review of the aerial photos evidence of debris flows was observed on the apex of Lorenzetta Creek. In addition, several reports completed for projects in the general area also comment on the occurrence of debris flows. The Thurber, June 11 2013 report states that debris flows have occurred in the past and could occur again and potentially breach the creek channel.

In our site reconnaissance no evidence of past debris flows affecting the building area was observed. If any smaller debris flows were to breach the current creek banks the low-lying land between the creek and the building area is sufficient to dissipate the energy and prevent damage to the building.

Valley Geo reviewed the recent construction at 58480 Laidlaw Road which had similar topographical conditions as the subject site. The report completed by Hay & Company, November 15, 2005 for 58480 Laidlaw Road for the storage building assigned a hazard level of low for debris flow. The report also identified that if the building was elevated even slightly above the surrounding grade that the hazard level could be considered as very low. The subject proposed building area is located in a local high point and elevated above the surrounding area. In addition, the building will be elevated a minimum of 300mm above the surrounding grade as part of the flood protection measures further protecting it from debris flows.

We estimate that annual probability of occurrence within the proposed building area from debris flow and torrents to be between 1:500 to 1:10000, therefore, requiring protective measures. We confirm that elevating the building 300mm above the surrounding grade (required for flood protection) is sufficient to protect from debris flows or torrents (<1:10000).

5.4 Debris Floods

The subject site may be subject to debris floods if the above debris flow impedes the collector channel's flow. We estimate that annual probability of damage to the proposed building from debris flow and torrents to be between 1:200 to 1:500, therefore, requiring protective measures. We confirm that elevating the building 300mm above the surrounding grade (required for flood protection) is sufficient to protect from debris floods (1:500 - 1:10000).

5.5 Landslides, Small-Scale, Localized

Several small landslides were observed on the mountain slopes approximately 500m from the proposed building area. In addition, some concern was raised about logging practices in the area.

The building area is located far enough away from the toe of the mountain and within a relatively flat area. On the basis of the above we estimate the probability of damage to the proposed building from small scale localized landslip to be low (<1:10000)

5.6 Snow Avalanche

The site is not located within an avalanche area; low probability of <1:10000.

5.7 Rock Falls

Bedrock outcrops or talus slopes are not present onsite or in the immediate vicinity of the subject site. This hazard has a low probability (<1:10000).

5.8 Catastrophic Landslide

Valley Geo has reviewed the surrounding topography and available aerial photos. To the best of our knowledge there have not been any large scale slippages or slides in the area. The annual probability of hazard from a Massive and Catastrophic Landslide is low (<1:10,000).

5.9 Seismic

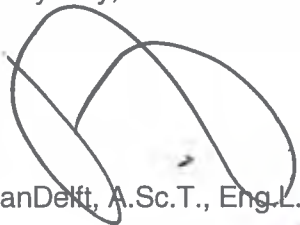
Liquefaction of the underlying gravelly sand material below the water table could occur. However, the upper sandy silt to clayey silt is thick enough that punching of the footings would not occur.

The above sections presented our hazard assessment and methodology. Provided the above recommendations are implemented, we confirm that the land may be used safely for the use intended. A Landslide Assessment Assurance Statement has been attached as Appendix E.

6.0 CLOSURE

We trust that this geotechnical and hazard assessment report provides you with the information required for the proposed agricultural storage building. If you have any questions, please do not hesitate to call.

Yours very truly;



Brad VanDelft, A.Sc.T., Eng.L.

Geotechnical Engineering - Principal



Narayan Abhyankar, FEC, P.Eng.
Principal Geotechnical Engineer



Joel Blanco, P.Eng.
Senior Geotechnical Engineer

Attachments:

- Appendix A: Building Drawings and Site Location Plan
- Appendix B: Overall Site Plan
- Appendix C: Test Pit Location Plan and Logs
- Appendix D: Aerial Photo Interpretation
- Appendix E: Geohazard Assurance Statement

S:\VGES-PROJECTS\43900\43921-01\43921-01 (2018-09-18) hazard report revised.doc

Appendix A

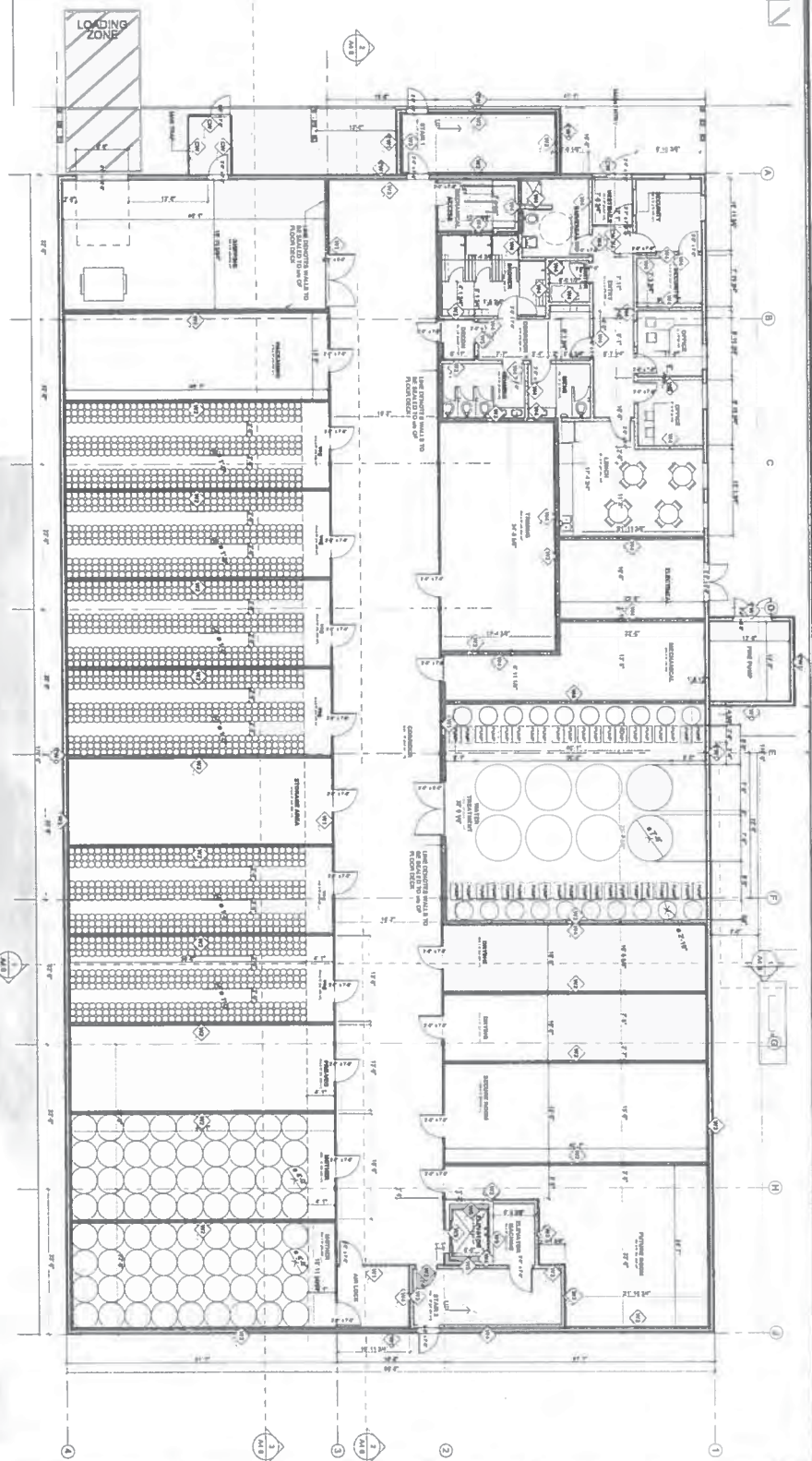
Building Drawings and Site Location Plan



KALLEY GEOTECHNICAL ENGINEERING SERVICES LTD Unit 15 20279 97th Avenue Langley BC, V1M 4B9 Phone: (604) 882-8475 Fax: (604) 882-8476	Client: MICHAEL WATSON		SEAL		FARM STORAGE ROOM SITE PLAN	
	Location: 58551A DENT ROAD LAIDLAW, BC					
	FILE No. 43921-01	DATE OCTOBER 16, 2013				
	Z:\VIGES-PROJECTS\43900\43921-01\43921-01 2013-10-16.dwg					
		REV	DATE	DESCRIPTION	Drawn: EK	Dwg No.
					Checked: AJ	1
					Scale: NTS	



1 MAIN FLOOR
1/8" = 1'-0"



ISSUED FOR INFORMATION

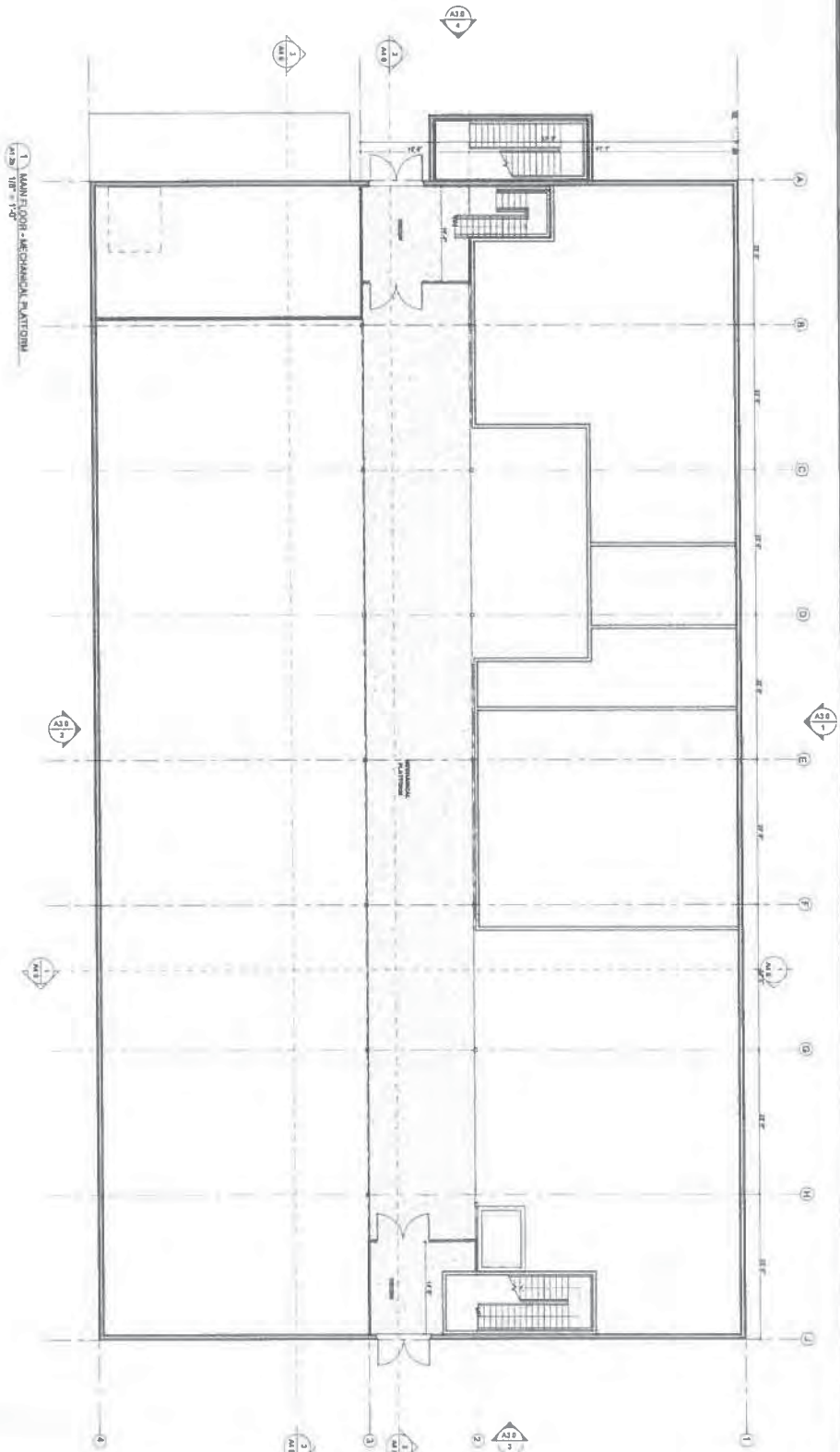
DATE PRINTED: 01/20/18 3:41:37 PM
A1.2

PROJECT: DBO Agriculture Inc.
PRODUCTION: Production Facility
ADDRESS: 58551 A Dent Road, Hope, BC
TITLE: MAIN FLOOR

DESIGNED BY: JDR
CHECKED BY: TK
SCALE: AS NOTED
SHEET NO: 18

PROJECT: DBO Agriculture Inc.
PRODUCTION: Production Facility
ADDRESS: 58551 A Dent Road, Hope, BC
TITLE: MAIN FLOOR
DESIGNED BY: JDR
CHECKED BY: TK
SCALE: AS NOTED
SHEET NO: 18

PROJECT: DBO Agriculture Inc.
PRODUCTION: Production Facility
ADDRESS: 58551 A Dent Road, Hope, BC
TITLE: MAIN FLOOR
DESIGNED BY: JDR
CHECKED BY: TK
SCALE: AS NOTED
SHEET NO: 18



ISSUED FOR INFORMATION

DATE PRINTED: 08/22/2018 2:41:47 PM
SHEET NO: A1.2b
DATE: SEP 11, 18
CHECKED BY: TK
DRAWN BY: JDR

PROJECT: Production Facility
ADDRESS: 58551 A Dent Road, Hopa, BC
TITLE: MAIN FLOOR - MECHANICAL PLATFORM

CUSTOMER: DBO Agriculture Inc.
DESIGNER: Kerkhoff Engineering Ltd.
4801 8822 VICTORIA RD.
CHILLIWACK, BC V2M 3N1

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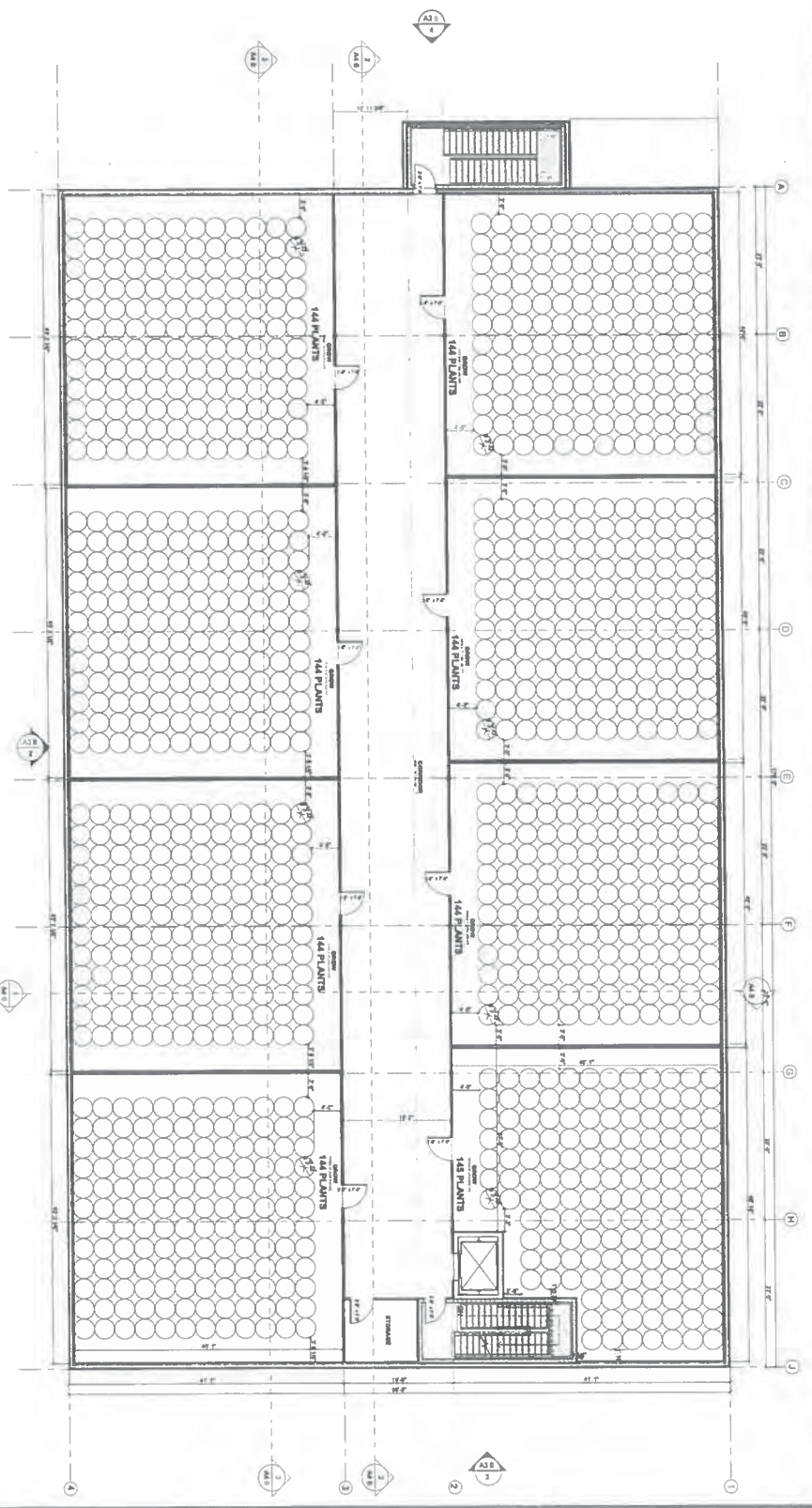
STRUCTURAL DRAWING

44

CONTINUATION

NO.	DATE	BY	CHK.	DESCRIPTION
1	SEP 11, 18	TK	JDR	ISSUED FOR INFORMATION

18-128

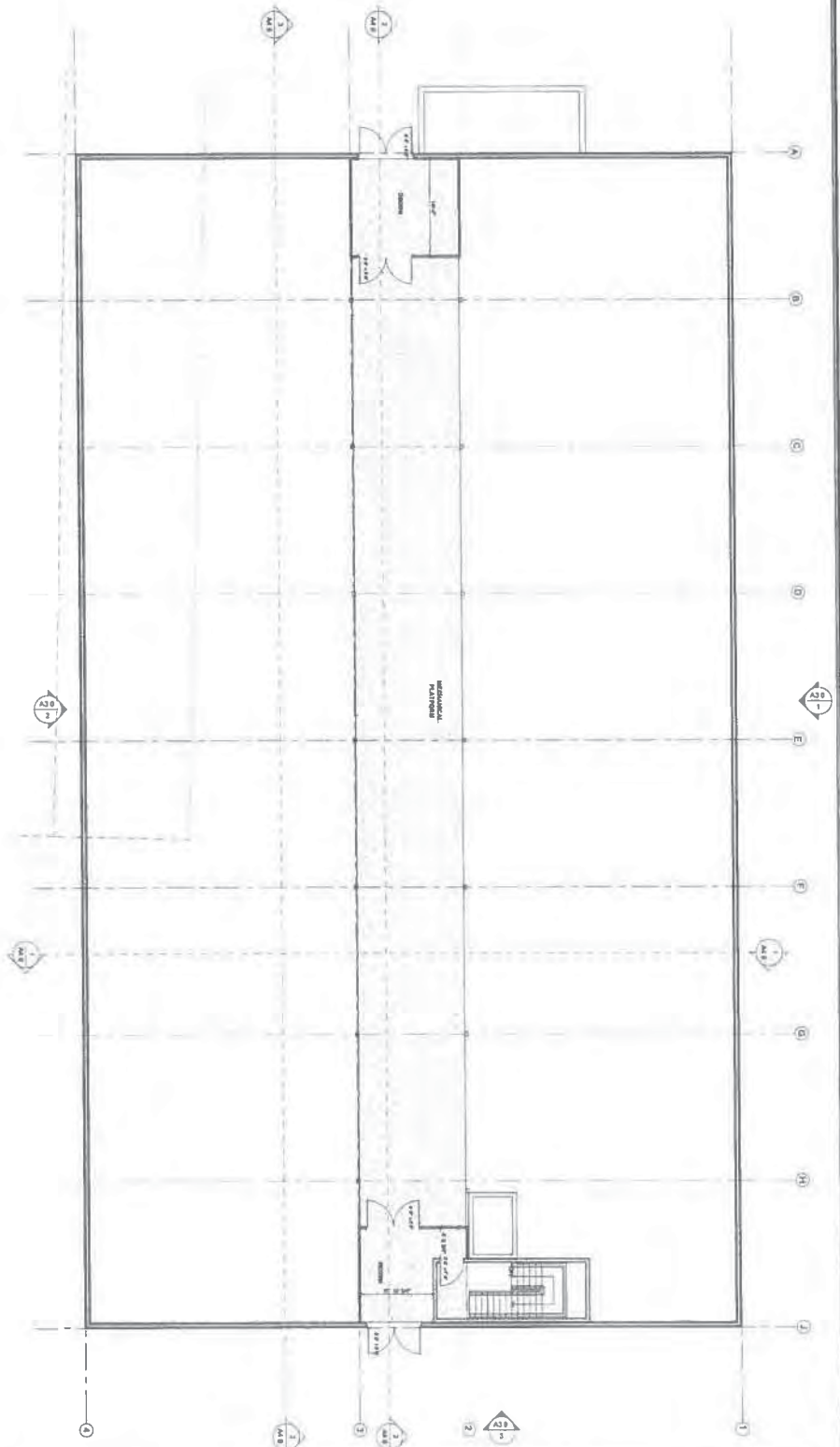


1 UPPER FLOOR
A1.3 1/8" = 1'-0"

ISSUED FOR INFORMATION

PROJECT NO. 18-128	
ISSUES NO. DATE DESCRIPTION 1 18-128-01 ISSUED FOR INFORMATION 2 18-128-02 ISSUED FOR INFORMATION 3 18-128-03 ISSUED FOR INFORMATION	
DESIGNED BY JON	CHECKED BY TX
SCALE AS NOTED	DATE SEP 13, 18
SHEET NO. A1.3	
DATE PLOTTED SEP 13, 18	
FILE PATH S:\180018\18-128-01.dwg	
PROJECT Production Facility	
ADDRESS 58551 A Dene Road, Hope, BC	
FLOOR PRODUCTION FLOOR	
CLIENT DBO Agriculture Inc.	
DESIGNER Kstark Engineering Ltd.	
NOTES 1. THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS THE PROPERTY OF KSTARK ENGINEERING LTD. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF KSTARK ENGINEERING LTD.	

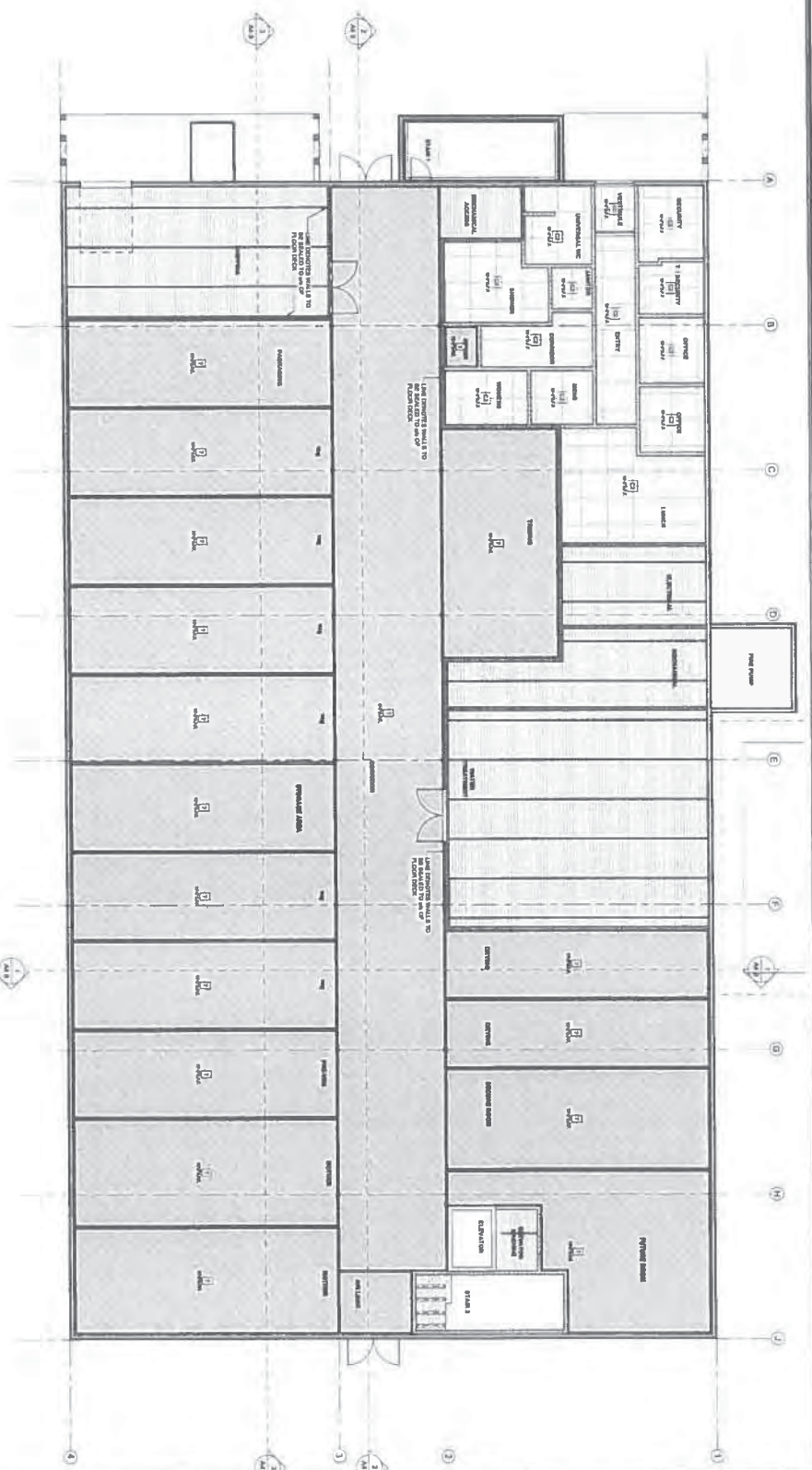
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A1.3b
1/8" = 1'-0"



ISSUED FOR INFORMATION

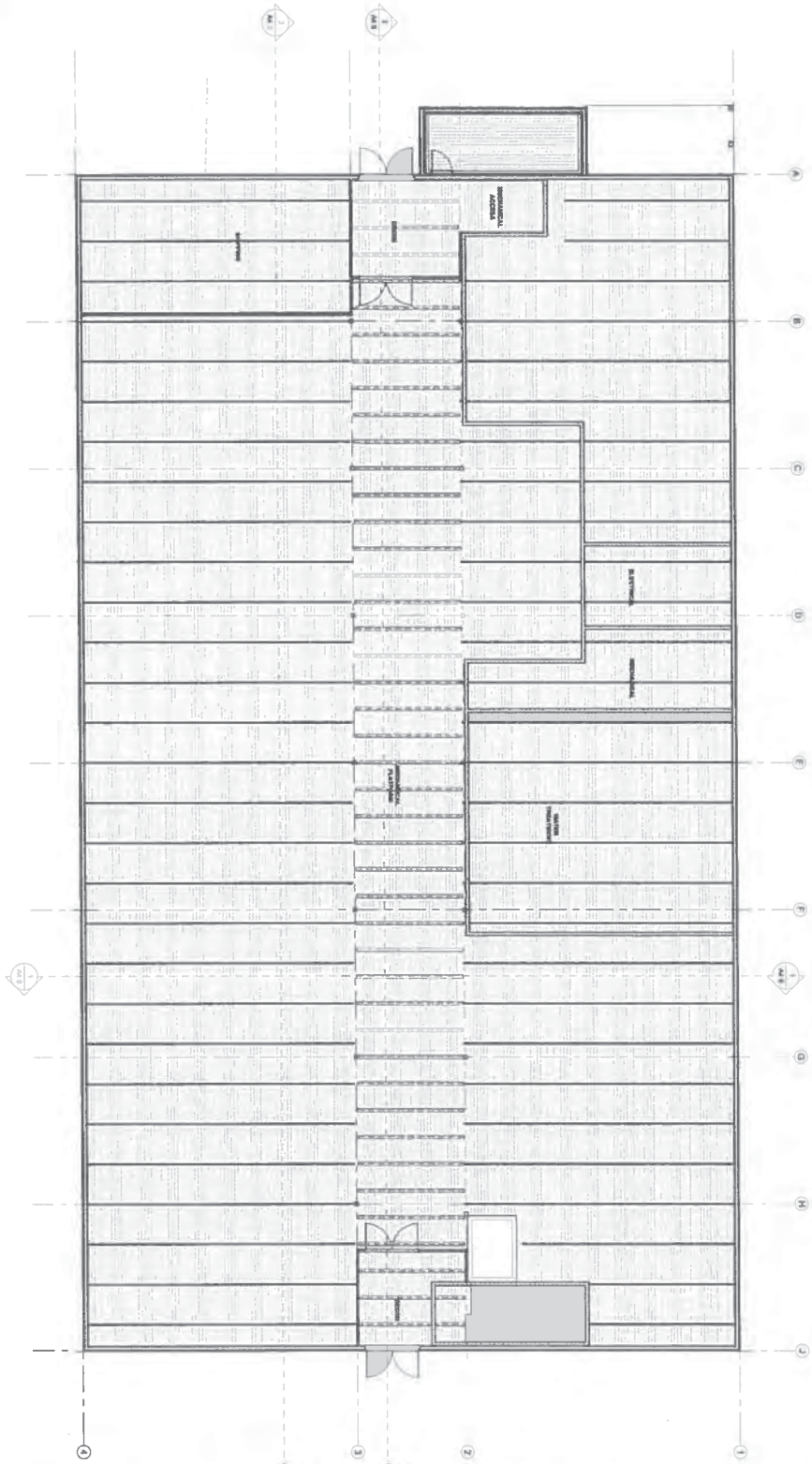
PROJECT INFORMATION PROJECT: 58551 A Dent Road, BC CLIENT: DBO Agriculture Inc. DESIGNER: Kerno Engineering Ltd. DATE: SEP 11, 18 DRAWN BY: JON CHECKED BY: TK SCALE: AS NOTED REVISION: A1.3b DATE PRINTED: 01/20/18 3:41:48 PM		ISSUES <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>SEP 11, 18</td> <td>TK</td> <td>ISSUED FOR INFORMATION</td> </tr> </tbody> </table>	NO.	DATE	BY	DESCRIPTION	1	SEP 11, 18	TK	ISSUED FOR INFORMATION
NO.	DATE	BY	DESCRIPTION							
1	SEP 11, 18	TK	ISSUED FOR INFORMATION							

1 RCP - MAIN FLOOR
A14 1/8" = 1'-0"



ISSUED FOR INFORMATION

1 MAIN FLOOR PLATFORM - RCP



ISSUED FOR INFORMATION

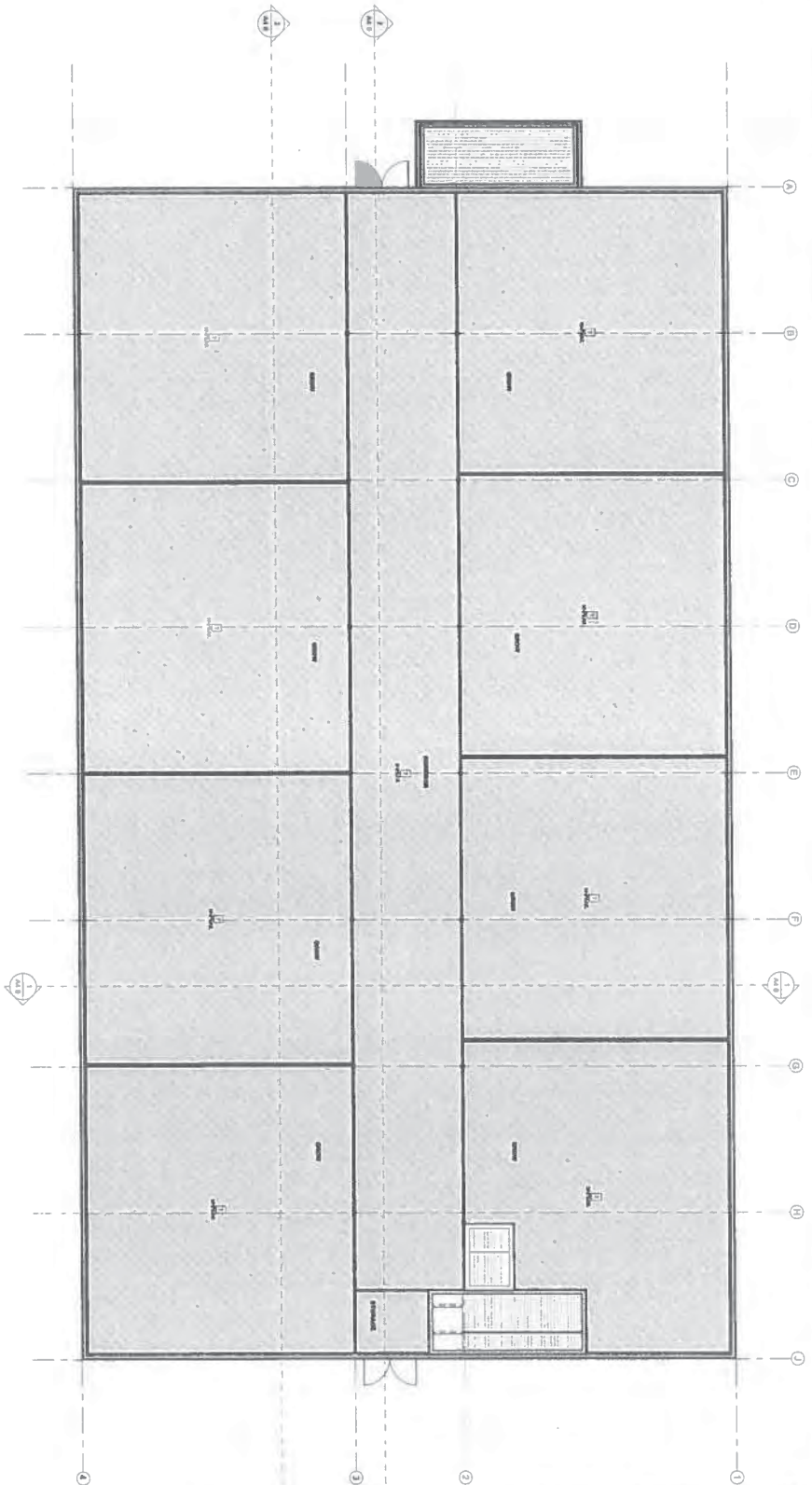
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 CHECKED BY: TK
 SCALE: AS NOTED
 DATE: SEP 11, 18
 SHEET NO: A1.4b
 DATE PRINTED: 01/29/2018 3:41:59 PM

PROJECT:
 Production Facility
 ADDRESS:
 58551 A Dunt Road,
 Hope, BC
 TITLE:
 RCP - MAIN FLOOR
 MECHANICAL
 PLATFORM
 CLIENT:
 DBO Agriculture Inc.
 ARCHITECT:
 Kerkhoff
 Engineering Ltd.
 6101 140th Street
 Delta, BC V4C 2N1
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NO.	REV.	DATE	DESCRIPTION
1	01	SEP 11, 18	ISSUED FOR INFORMATION

PROJECT NO:
 18-128

1 UPPER FLOOR - RCP
1/8" = 1' 0"



ISSUED FOR INFORMATION

DESIGNED BY: JOR
CHECKED BY: TK
DATE: SEP 13, 18
SHEET NO: A1.5
DATE PRINTED: 01/20/2018 10:41:51 PM

PROJECT:
Production Facility
ADDRESS:
58551 A Dant Road,
Hops, BC
TITLE:
RCP - PRODUCTION
FLOOR

CLIENT:
DBO Agriculture Inc.

ARCHITECT:
kephkoff
Engineering Ltd.
6181 - 4822 VICTORIA RD.
CHILLIWACK, BC V2M 3M1

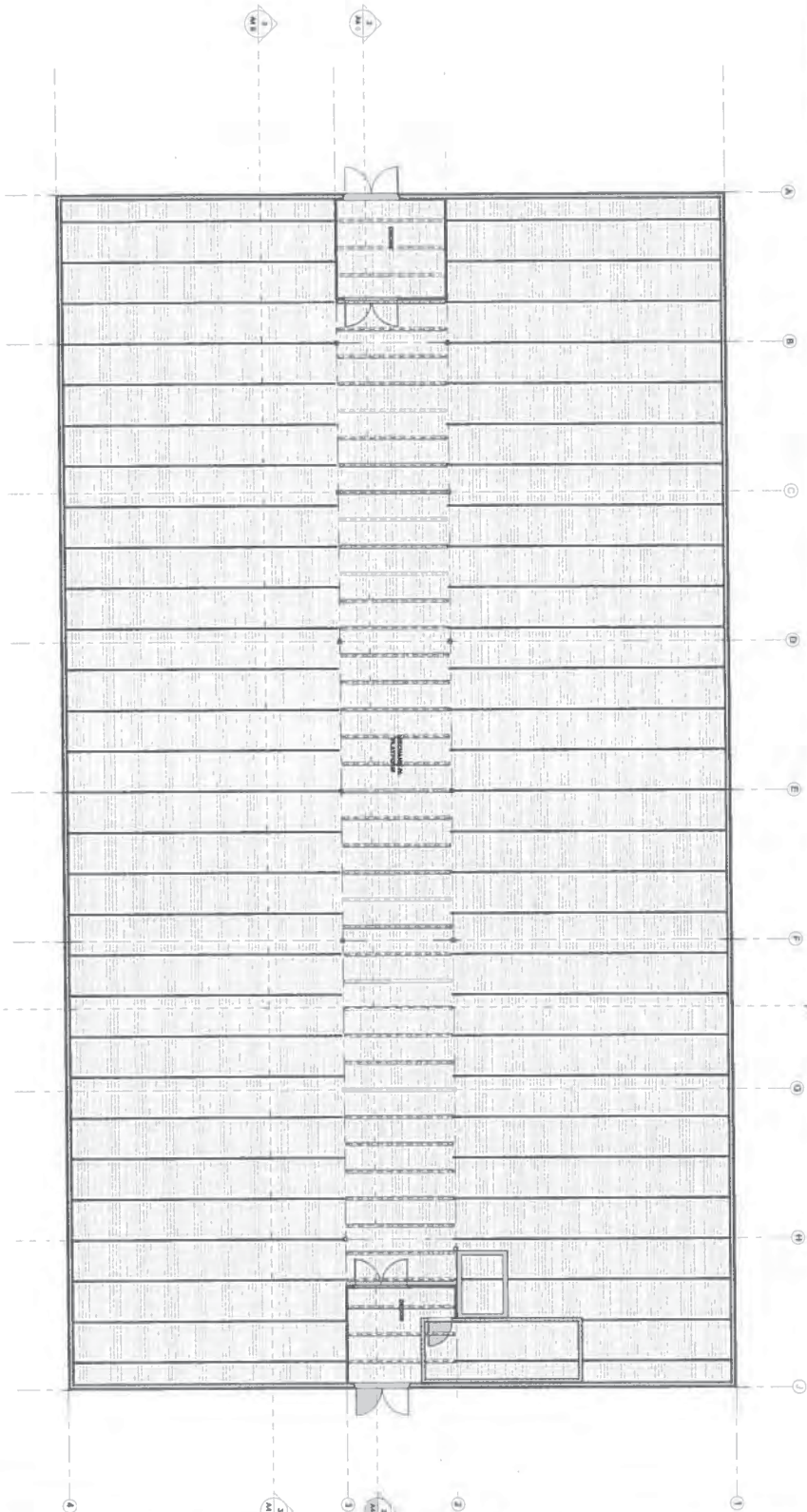
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NOTES:
1. INDICATED AND DIMENSIONS FOR INFORMATION
2. DATE: 11/13/18
3. SCALE: 1/8" = 1' 0"

PROJECT NO:
18-128

1 UPPER FLOOR PLATFORM - RCP
A1.5b 1/8" = 1'-0"



ISSUED FOR INFORMATION

DATE: 09/12/18
SHEET NO: A1.5b
SCALE: AS NOTED
DESIGNED BY: TX
CHECKED BY: TX

PROJECT:
Production Facility
RCP - PRODUCTION
FLOOR
MECHANICAL
PLATFORM

ADDRESS:
58551 A Dent Road,
Hopewell, VA

DESIGNED BY:
DBO Agriculture Inc.

NOTES:
1. THE DRAWING, AS PREPARED BY THE ARCHITECT, IS THE PROPERTY OF THE ARCHITECT AND IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT.
2. THE ARCHITECT IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED BY OTHER SOURCES.
3. THE ARCHITECT IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED BY OTHER SOURCES.

ARCHITECT:
Kernhoff
ENGINEERING, LLC

CONTINUATION

REVISIONS:
DATE: 09/12/18
BY: TX
REASON: FOR INFORMATION


Appendix B

Overall Site Plan



KALLEY GEOTECHNICAL ENGINEERING SERVICES LTD. Unit 15 20279 97th Avenue Langley BC, V1M 4B9 Phone: (604) 882-8475 Fax: (604) 882-8476		Client: Michael Watson		Global Map Site Plan	
		Location: 58551A Dent Road, FVRD, BC			
FILE No. 43921-01		DATE November 07, 2013		Drawn: SC Checked: AJ Scale: 1:10000	
Dwg No. 1 of 2		REV DATE DESCRIPTION		SEAL	



 VALLEY GEOTECHNICAL <small>ENGINEERING SERVICES LTD.</small>	Client: Michael Watson		Seal	<div>REV</div> <div>DATE</div> <div>DESCRIPTION</div>							Topographic Map Site Plan			Dwg No. 2 of 2		
	Location: 58551A Dent Road Laidlaw BC															
	FILE No. 43921-01	DATE November 07, 2013														
	Unit 15 20279 97th Avenue Langley BC, V1M 4B9 Phone: (604) 882-8475 Fax: (604) 882-8476															
	Unit 15 20279 97th Avenue Langley BC, V1M 4B9 Phone: (604) 882-8475 Fax: (604) 882-8476															
														Drawn:	SC	1:3000
														Checked:	AJ	
														Scale:		

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Appendix C

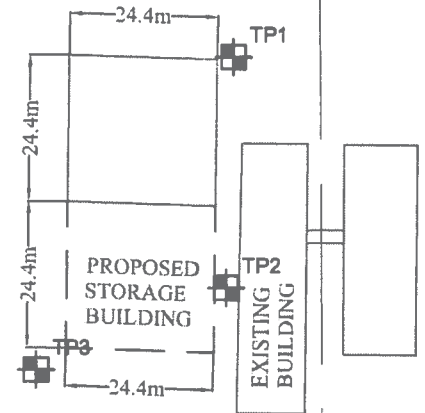
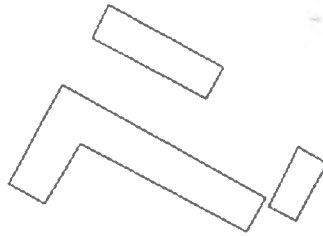
Test Pit Location Plan and Logs



354

311

303



DENT ROAD



Unit 15 20279 97th Avenue
Langley BC, V1M 4B9
Phone: (604) 882-8475
Fax: (604) 882-8476

Client: MICHAEL WATSON

Location: 58551A DENT ROAD
LAIDLAW, BC

FILE No.
43921-01

DATE
OCTOBER 16, 2013

SEAL

TEST PIT LOCATION PLAN

Drawn:
Checked:
Scale:

EK
AJ
1:1250

Dwg No.
1

SUMMARY OF TEST PITS LOG

Project: 43921-01
Date of Investigation: October 7, 2013
Location: Lot 7, 58551A Laidlaw Road, Laidlaw, BC
Method of Excavation: Track Mounted Excavator
Logged By: Albert Jian

Test Pit No.	Depth (m)	Moisture %	Soil Conditions
1	0.0 – 0.8		Sand and silt FILL (loose)
	0.8 – 1.8		Brown SANDY SILT (moist) (Compact) Pocket Penetrometer: 2.7 kg/(cm) ²
	1.8-1.9		Grey SANDY GRAVEL (moist) (very dense) Pocket Penetrometer: > 3.5 kg/(cm) ² -Test pit discontinued at 1.9m -No water seepage encountered
2	0.0 – 0.6		Sand and silt FILL (loose)
	0.6 – 1.5		Brown SANDY SILT (moist) (Compact)
	1.5 – 1.7		Grey SANDY GRAVEL (moist) (very dense) - Test pit discontinued at a depth of 1.7 - No water seepage encountered

Test Pit No.	Depth (m)	Moisture %	Soil Conditions
3	0.0 - 0.5		Topsoil: organic SILT (wet) (loose)
	0.5 – 1.7	37.4	Brown CLAYEY SILT (moist)(very stiff)
	1.7 – 1.8	9.3	Grey SANDY GRAVEL (moist) (very dense) Pocket Penetrometer: > 3.5 kg/(cm) ² -Test pit discontinued at 1.9m -No water seepage encountered

Appendix D

Aerial Photo Interpretation

Aerial photographs dated 1928, 1947, 1951, 1954, 1961, 1963, 1973, 1979, 1983, 1992, 1996, 1999, and 2004.

AIRPHOTO INTERPRETATION

Project # 43921-01
 58551A Dent Road, Laidlaw

Year	Description
1928	<p>On The Subject Property</p> <ul style="list-style-type: none"> - Single family residence, open field and agricultural land, - Buildings at the Southeast portion, - A channel travels from Northeast corner to south. <p>Adjacent Areas</p> <ul style="list-style-type: none"> - Single family residences on the North side, - Agricultural land on the North, East, West sides, - Dent Road (E-W) on the South side connected to a road (N-S) on the West side, - Natural forest on the South side. <p>Lorenzetta Creek</p> <ul style="list-style-type: none"> - Creek travels from the top to bottom of the mountain (SE-N) on the East, - At the flat area, creek travels (N- SW) on the West.
1947	<p>On The Subject Property</p> <ul style="list-style-type: none"> - Similar to year 1928, except - More buildings were constructed at the Southeast portion, - Creek does not exist. <p>Adjacent Areas</p> <ul style="list-style-type: none"> - Similar to year 1928, except - Laidlaw Road was constructed on the West side, - Logging activity (SE) on the mountain side. <p>Lorenzetta Creek</p> <ul style="list-style-type: none"> - Similar to year 1928, except - Mountain area (SE-N) observed alluvial deposition with creek channel, - Flat area (N-SW) not visible through trees.

Valley Geotechnical Engineering Services Ltd.

1951	<p>On The Subject Property</p> <ul style="list-style-type: none">- Similar to year 1947 <p>Adjacent Areas</p> <ul style="list-style-type: none">- Similar to year 1947 <p>Lorenzetta Creek</p> <ul style="list-style-type: none">- Similar to year 1947, except- Flat area (N-SW) observed high water level- Possible deposition of debris.
1954	<p>On The Subject Property</p> <ul style="list-style-type: none">- Similar to year 1951 <p>Adjacent Areas</p> <ul style="list-style-type: none">- Similar to year 1951 <p>Lorenzetta Creek</p> <ul style="list-style-type: none">- Similar to year 1947, except- Flat area (N-SW) not visible through trees.
1961	<p>On The Subject Property</p> <ul style="list-style-type: none">- Similar to year 1954 <p>Adjacent Areas</p> <ul style="list-style-type: none">- Similar to year 1954, except- logging at South side,- Natural forest at Southeast side. <p>Lorenzetta Creek</p> <ul style="list-style-type: none">- Similar to year 1954.
1963	<p>On The Subject Property</p> <ul style="list-style-type: none">- Similar to year 1961 <p>Adjacent Areas</p> <ul style="list-style-type: none">- Similar to year 1961, except- Dent Road connected to Laidlaw Road. <p>Lorenzetta Creek</p> <ul style="list-style-type: none">- Similar to year 1961.

1973	<p>On The Subject Property</p> <ul style="list-style-type: none"> - Similar to year 1963 <p>Adjacent Areas</p> <ul style="list-style-type: none"> - Similar to year 1963, except - Single family residence, open field and agricultural land on the South side - Slope failure at the mountain on the Southeast. <p>Lorenzetta Creek</p> <ul style="list-style-type: none"> - Similar to year 1963. -
1979	<p>On The Subject Property</p> <ul style="list-style-type: none"> - Similar to year 1973 <p>Adjacent Areas</p> <ul style="list-style-type: none"> - Similar to year 1973 <p>Lorenzetta Creek</p> <ul style="list-style-type: none"> - Similar to year 1973.
1983	<p>On The Subject Property</p> <ul style="list-style-type: none"> - Similar to year 1979, except - Buildings were constructed at the west portion. <p>Adjacent Areas</p> <ul style="list-style-type: none"> - Similar to year 1979, except - The West side road (N-S) does not exist, - Logging area at the East side. <p>Lorenzetta Creek</p> <ul style="list-style-type: none"> - Similar to year 1979, except - Creek dyked improvement at the bottom of the Mountain area (SE-N) runoff.
1992	<p>On The Subject Property</p> <ul style="list-style-type: none"> - Similar to year 1983 <p>Adjacent Areas</p> <ul style="list-style-type: none"> - Similar to year 1983, except - South side single family residence, open field grew as a forest. <p>Lorenzetta Creek</p> <ul style="list-style-type: none"> - Similar to year 1983.

1996	<p>On The Subject Property</p> <ul style="list-style-type: none">- Similar to year 1992, except- Buildings were constructed at the west portion. <p>Adjacent Areas</p> <ul style="list-style-type: none">- Similar to year 1992, except- Logging at the Southeast side,- Located gravel extraction at the Southeast side. <p>Lorenzetta Creek</p> <ul style="list-style-type: none">- Similar to year 1992.
1999	<p>On The Subject Property</p> <ul style="list-style-type: none">- Similar to year 1996 <p>Adjacent Areas</p> <ul style="list-style-type: none">- Similar to year 1996 <p>Lorenzetta Creek</p> <ul style="list-style-type: none">- Similar to year 1996.
2004	<p>On The Subject Property</p> <ul style="list-style-type: none">- Similar to year 1999 <p>Adjacent Areas</p> <ul style="list-style-type: none">- Similar to year 1999- Single family residence at the North, East, South, and West sides. <p>Lorenzetta Creek</p> <ul style="list-style-type: none">- Similar to year 1999.

Appendix E

Landslide Assessment Assurance Statement [Appendix D]

APPENDIX D: LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

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

To: The Approving Authority

Date: September 20, 2018

Fraser Valley Regional District

45950 Cheam Avenue, Chilliwack, V2P 1N6

Jurisdiction and address

With reference to (check one):

- ☐ Land Title Act (Section 86) – Subdivision Approval
- ☐ Local Government Act (Sections 919.1 and 920) – Development Permit
- ☒ Community Charter (Section 56) – Building Permit
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Variance
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Exemption
- ☐ British Columbia Building Code 2006 sentences 4.1.8.16 (8) and 9.4 4.4.(2) (Refer to BC Building and Safety Policy Branch Information Bulletin B10-01 issued January 18, 2010)

For the Property:

LT 8; SEC 20; TWP 4; Range 27, Meridian W6, NWD PL23054 (58551A Dent Road)

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

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

Check to the left of applicable items

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

☐ 8.3 compared this guideline with the findings of my investigation

☐ 8.4 made a finding on the *level of landslide safety* on the Property based on the comparison

☐ 8.5 made recommendations to reduce *landslide hazards* and/or *landslide risks*

☒ 9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections.

Based on my comparison between

Check one

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

I hereby give my assurance that, based on the conditions¹⁹ contained in the attached *landslide assessment* report,

Check one

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

Check one

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

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

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

Check one

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

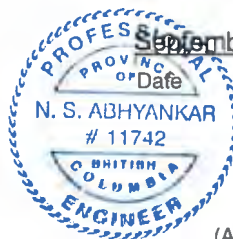
- ☐ for flood plain bylaw variance, as required by the "Flood Hazard Area Land Use Management Guidelines" associated with the Local Government Act (Section 910), "the development may occur safely".

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

Narayan Abhyankar, P.Eng.

Name (print)

Signature



Unit 15, 20279 97th Avenue, Langley, BC, V1M 4B9

Address

(Affix Professional seal here)

(604) 882-8475

Telephone

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

I am a member of the firm Valley Geotechnical Engineering Service Ltd. and I sign this letter on behalf of the firm.
(Print name of firm)

¹⁹ When seismic slope stability assessments are involved, *level of landslide safety* is considered to be a "life safety" criteria as described in the National Building Code of Canada (NBCC 2005), Commentary on Design for Seismic Effects in the User's Guide, Structural Commentaries, Part 4 of Division B. This states:

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

Geo-Hazard Assurance Statement

for Development Approvals

A. Project Information

Date Sept 18, 2018 FVRD File No. _____

Property Information

Project Name & Description Proposed Agricultural Building
Legal Description Lot 7, Sec 20, TWP 4, Range 27, Meridian 6, NWD 01 Meridian W6 Except PL 23054
Site Address 58551A Dent Road PID _____

Client Information

Name Michael Watson
Role ☐ Property Owner ☐ Developer ☐ Other
Client Address 58551A Dent Rd

Qualified Professional Information

Name Narayan Abhyankar
APEGBC Designation ☒ P.Eng. ☐ P. Geo. ☐ Eng.L ☐ Geo.L
Company Name VALLEY GEOTECHNICAL ENGG. SER. LTD.
Mailing Address #15-20279 97 Avenue Langley B.C. V1M 4B9
Email Address general@valleygeo.ca Phone # 604-882-8475

Geo-Hazard Report Reference

Title Geotechnical and Hazard Assessment Report Date Sept. 18, 2018

Personal information on this form is being collected in accordance with Section 27 of the Freedom of Information and Protection of Privacy Act, RSBC 1996 Ch. 165; Part 9, Division 1 [Building Regulation] and Part 14 [Planning and Land Use Management] of the Local Government Act, RSBC 2015 Ch. 1; and Section 56 of the Community Charter, SBC 2003 Ch. 26 and will only be collected, used and disclosed for the purpose of administering geo-technical hazard reviews and assurance statements related to development approvals. Questions? Contact FVRD Privacy Officer at 45950 Cheam Avenue, Chilliwack, BC V2P 1N6; 604-702-5000 or 1-800-528-0061; or FOI@fvr.ca.



Geo-Hazard Assurance Statement

for Development Approvals

B. Assurance

Based on the contents of this Assurance Statement and the Report, I hereby give assurance that:
(check as applicable)

Development Permit	The Report will "assist the local government in determining what conditions or requirements under it will impose in the permit", as required by the <i>Local Government Act</i> (Division 7)
Building Permit Community Charter	"The land may be used safely for the use intended", as required by the <i>Community Charter</i> (Section 56)
Seismic Slope	The Report addresses the requirements of the BC Building Code 2006, 4.1.8.1.6 (8) and 9.4.4.4 (2), as detailed in the BC Building & Safety Policy Branch Information Bulletin B10-01, Jan 18, 2010
Floodplain Management Bylaw Exemption	"The land may be used safely for the use intended", as required by the <i>Local Government Act</i> . (Section 524)
Subdivision	"The land may be used safely for the use intended", as required by the <i>Land Title Act</i> (Section 86).
Other (e.g. Zoning Bylaw Amendment, Official Community Plan Amendment, Temporary Use Permit, etc.)	<Insert statement as appropriate>

C. APEGBC Professional Practice Guidelines

The Report and this Assurance Statement should be completed in accordance with the current version of one or both of the following Professional Engineers and Geoscientists of BC (APEGBC).

- *Legislated Flood Assessments in a Changing Climate in BC*
- *Legislated Landslide Assessments for Proposed Residential Development in British Columbia, ("APEGBC Landslide Guidelines")*.

These two documents are collectively referred to as the "APEGBC Guidelines". The italicized words in this Assurance Statement are defined in the APEGBC Guidelines.

The Report has been prepared pursuant to the following APEGBC Guidelines (check one or both as applicable).

APEGBC Flood Guidelines ✓

APEGBC Landslide Guidelines ✓

Geo-Hazard Assurance Statement

for Development Approvals

If the Report is **not** prepared pursuant to either of the APEGBC Guidelines, please explain.

D. Background Information

Qualified Professionals **must** confirm and check that each item is included in the Report.

1. Property location map — 8.5 x 11 size
2. Development proposal site plan — 8.5 x 11 size. *If a subdivision, show the parent parcel and all lots to be created, including any remainder.*
3. Description of the proposed development project (including building use) to the extent this is known at the time of Report preparation.

residential

industrial

commercial

institutional

other _____

E. Technical Requirements

Qualified Professionals **must** review, confirm and check completed items (as applicable).

Report Content

4. Relevant information pertaining to the Property and pertinent potential hazards from appropriate background sources, including the FVRD online library.
5. Time limitation or condition statement to describe extent the FVRD may rely on the Assurance Statement and Report for development approvals, and when resubmittal is recommended.
6. Maps, illustrations and diagrams to illustrate areas referred to in the Report.
7. Description of field work conducted on and, if required, beyond the Property.
8. Contact and consultation with the Fraser Valley Regional District. Provide name and title of contact.

-
9. Review of relevant FVRD bylaws and other statutory requirements.
 10. Restrictive covenants registered against the Property title that pertain to geo-hazards (if registered, the Report provides relevant information about the covenants).
 11. Notation of any visibly apparent natural hazards or other hazards identified in background reports, which are not identified and addressed in this Report. If yes, provide details in Section H: Geo-Hazard Summary Table.

Yes

☒ No

12. Does the report rely on one or more supporting reports, each of which is independently reviewed, signed and sealed. If yes, provide details in Section H: Geo-Hazard Summary Table.

Yes

☒ No

13. For subdivision approval, the Report addresses natural hazards for:

the parent parcel prior to subdivision

any lots to be created (including any remainder)

Geo-hazard Assessment, Risk Acceptability and Risk Transfer

14. In considering the above-noted potential hazards that may affect the property, I have:
- reviewed and characterized the potential hazard(s)
 - estimated the potential frequency and magnitude of the potential hazard(s)
 - relied on supporting reports as noted above
 - relied on a pre-existing assessment of hazard frequency and magnitude
 - considered the potential effects of climate change in the context identified in the Report
 - considered the potential effects of changed future conditions (upstream watershed changes, forestry activity, land use changes, sea level rise, etc.) in the context identified in the Report
15. This Assurance Statement pertains to all geo-hazards that are assessed in the Report and any supporting reports, and accurately reflects the contents of those documents.
16. The FVRD has adopted "Hazard Acceptability Thresholds for Development Approvals by Local Government", which provides a specific level of hazard or risk tolerance. I have included a Hazard Summary Table which:
- lists all the potential hazards addressed by the Report and any supporting reports
 - provides an annual return frequency and acceptability threshold classification for the unmitigated condition
 - proposes mitigative measures to appropriately reduce the geo-hazard risk
 - provides an annual return frequency and acceptability threshold classification for the mitigated condition
17. The Report describes the potential transfer of natural hazard risk to other properties or infrastructure as a result of the proposed project (including any proposed *mitigation works*) and
- considered the potential for transfer of natural hazard risk
 - concludes that there is no significant transfer of natural hazard risk
 - identifies the potential transfer of natural hazard risk and proposes measures to offset such transfer of risk

Mitigation and Design Recommendations (if recommended)

The Report contains the following items:

18. Implementation steps for the identified structural mitigation works (in terms of design, construction and approval).
19. Clearly identified safe locations for building(s), ancillary structures, and onsite utility services (as applicable, such as a septic field) out of the natural hazard area as a preferred development alternative.
20. Commentary on the effectiveness of proposed structural mitigation works in terms of ability to reduce the potential hazard impact, and identification of any residual risk that would remain.
21. Proposed Flood Construction Level (FCL) for future development and including specification of an appropriate method of achieving the FCL.
22. Proposed watercourse setback, which is clearly referenced from the natural boundary, top of bank or another suitable basis.
23. Proposed operation and maintenance actions that will be necessary in order for the level of safety to be maintained in the future, with indications of who should be responsible for those actions and when.

Riparian Area Regulation (if applicable)

24. QP must review RAR assessment report to avoid conflict with Geo-Hazard Report recommendations.

E FVRD Supplemental Requirements

The following points are understood by the Qualified Professional when submitting a Report:

25. Permission is granted to the FVRD to use the Report in considering approval of the proposed development on the property, provided that such permission is limited only to the proposed development project for which the Report was prepared.
26. Methodology used in the Report is described in sufficient detail to facilitate a professional review of the study by the FVRD when necessary.
27. Professional liability insurance coverage of at least \$1 million per claim is carried by the QP.
28. Third party review or supplemental information may be required by the FVRD where complex development proposals warrant.
29. Permission is granted to the FVRD to include the Report in the online FVRD geo-hazard report library (as background information, not for other parties to rely).

Geo-Hazard Assurance Statement

for Development Approvals

G. Qualified Professional (QP)

Prepared by: (QP of Record)

Name NARAYAN ABHYANKAR

Designation P.Eng. P. Geo. Eng.L Geo.L

Reviewed by:

Name Joel Blanco

Designation P.Eng. P. Geo.

The Report has received appropriate technical review which is consistent with both the APEGBC Professional Practice Guidelines, and APGBC Quality Management Guidelines. The name of the reviewer is noted in the Report and below.

Professional Seal, Signature and Date:



I am a Qualified Professional as defined in the APEGBC Guidelines, and I fulfill the education, training and experience requirements as outlined in the APEGBC Guidelines

I have signed, sealed, dated and thereby certify, this Assurance Statement and the attached report.

Geo-Hazard Assurance Statement

for Development Approvals

H. Geo-Hazard Summary Table

The geo-hazard report and/or any supporting reports addresses the following hazard types.

Geo-Hazard Type #1 <i>Inundation - flood water</i>	Geo-Hazard Type #2 <i>Mountain Stream Erosion/Avulsion</i>
Annual Return Frequency (Unmitigated) <i>unknown</i>	Annual Return Frequency (Unmitigated) <i>1:500</i>
Acceptability Threshold Classification <i>1</i>	Acceptability Threshold Classification <i>1</i>
MITIGATION (if necessary)	
Proposed Mitigation Measures <i>Yes</i> No	Proposed Mitigation Measures Yes <i>No</i>
Annual Return Frequency (Mitigated) <i>1:200</i>	Annual Return Frequency (Mitigated) <i>1:500</i>
Acceptability Threshold Classification <i>1</i>	Acceptability Threshold Classification <i>1</i>
Comments <i>Fraser River & Lorenzetta Creek</i>	Comments
SUPPORTING REPORT	
Was this report prepared by others? Yes <i>No</i>	Was this report prepared by others? Yes <i>No</i>
If yes, list report name, date and author.	If yes, list report name, date and author.

Geo-Hazard Type #3 <i>Debris Flow & Torrents</i>	Geo-Hazard Type #4 <i>Debris Floods</i>
Annual Return Frequency (Unmitigated) <i>1:500 - 1:10,000</i>	Annual Return Frequency (Unmitigated) <i>1:200 - 1:500</i>
Acceptability Threshold Classification <i>3</i>	Acceptability Threshold Classification
MITIGATION (if necessary)	
Proposed Mitigation Measures <i>Yes</i> No	Proposed Mitigation Measures <i>Yes</i> No
Annual Return Frequency (Mitigated) <i>1:10,000</i>	Annual Return Frequency (Mitigated) <i>1:500 - 1:10,000</i>
Acceptability Threshold Classification <i>1</i>	Acceptability Threshold Classification <i>1</i>
Comments	Comments
SUPPORTING REPORT	
Was this report prepared by others? Yes <i>No</i>	Was this report prepared by others? Yes <i>No</i>
If yes, list report name, date and author.	If yes, list report name, date and author.

Geo-Hazard Assurance Statement

for Development Approvals

Indicate which hazards were NOT reviewed:

Chilliwack River Valley Erosion or Avulsion
Debris Flow and Debris Torrent
Debris Flood
Fraser River & tributaries flooding
Mountain Stream Erosion or Avulsion
Major Catastrophic Landslide

Seismic Effects/Liquefaction
Rockfall - Small Scale Detachment
Slope Stability
Small Scale Localized Landslide
Snow Avalanche
☒ Tsunami

Hazard Acceptability Thresholds Classification, as per Hazard Acceptability Thresholds for Development Approvals by Local Government dated November 1993 by Dr. Peter Cave.

- 1 Approval with conditions relating to hazards.
- 2 Approval, without siting conditions or protective works conditions, but with a covenant including "save harmless" conditions.
- 3 Approval, but with siting requirements to avoid the hazard, or with requirements for protective works to mitigate the hazard.
- 4 Approval as (3) above, but with a covenant including "save harmless" conditions as well as siting conditions, protective works or both.
- 5 Not approvable.

Additional Comments

Mr. Michael Watson
58551A Dent Road
Laidlaw, BC

August 14, 2018
(revised September 18, 2018)

Attention: Mr. Michael Watson

Regarding: Geotechnical Report
Proposed Agricultural Building at 58551A Dent Road, Laidlaw, BC
Project: 43921-01

1.0 INTRODUCTION

Valley Geotechnical Engineering Services Ltd. (Valley Geo) has been retained by Mr. Michael Watson to complete a Geotechnical Report for the proposed architectural building. This report summarizes our work to date and presents our recommendations.

Valley Geo previously completed a Hazard Report for this site. At that time several test pits were put down to determine the soil conditions. In addition, we tested the filling of the old manure pit within the building footprint. This information was referenced in preparation of this report.

Provided the recommendations presented in this report and in our May 5, 2018 Hazard Report are implemented, we confirm that the building may be safely constructed as proposed.

2.0 PROPOSED CONSTRUCTION

An agricultural storage building is purposed to be constructed at the at the mid-point of the east property line. The building will be two floors high and rectangular in shape with dimensions of 24.7m wide 54.5m long and 7.6m high. A portion of the building is proposed to be located over an existing manure pit which was previously filled in with structural material; tested and approved by Valley Geo.

See Appendix A for Building Drawings and Site Location Plan.

3.0 SITE SOIL STRATIGRAPHY

Valley Geo completed a test pit investigation on October 7, 2013 with a track mounted excavator as part of our previous hazard report. Three test pits (designated as TP1 and TP3) were excavated to depths ranging from 1.7m to 1.9m below the existing grade.



The subsurface conditions encountered generally consist of:

- Sand and silt fill up to 0.8m thick underlain by
- Moist, medium stiff to medium dense sandy silt, up to 1.2m thick underlain by
- Moist, very dense to dense, sandy gravel to depths explored

An exception to the above was TP 3 where topsoil was over a very stiff clayey silt deposit. No free water was encountered during the test pit investigation.

See Appendix B for Test Pit Location Plan and Test Pit Logs.

4.0 DISCUSSIONS ARE RECOMMENDATIONS

The following presents our recommendations for the construction of the proposed building.

4.1 Seismic

Data provided by Earthquake Canada (2015) indicates that the site is subject to a Peak Ground Acceleration of 0.181g and seismic hazard values of $S_a(0.2) = 0.398g$, $S_a(0.5) = 0.335g$, $S_a(1.0) = 0.218g$, and $S_a(2.0) = 0.142g$ during a 1:2475 design earthquake. Based on the soil data obtained from the site, the Site Classification is D.

Due to lack of deep soil information we are unable to rule out the potential for liquefaction. Ground water was not encountered in our investigation on the subject site and several projects in the vicinity to a minimum depth of 3.0m. If liquefaction did occur, global settlement and lateral movement during or after a major seismic event may result in damage to the building. To allow egress we recommend that the building slab be reinforced in two directions and tied to the foundations. It is our understanding that this building is not considered post disaster and therefore provision are only required for egress from the building.

In order to use Site Class D, the structural engineer must confirm that the fundamental period of vibration of the proposed structure is equal to or less than 0.5 *(Based on BCBC 4.1.8.4. Clause 6). If not, additional deeper soil information and a site-specific spectral analysis will be required which is not included in our scope of work.

4.2 Foundations

Topsoil and unsuitable fill must be removed from the entire building area. Conventional strip and spread footings on the approved compacted fill or native stiff silt or sand and gravel can be used. The following design parameters should be used for the foundation design by the structural engineer.

Factored Ultimate Limit State (ULS)	180kPa (3750psf)
Serviceability Limit State (SLS)	120kPa (2500psf)
Site Class	D

All bearing surfaces should be inspected and approved by Valley Geo prior to concrete placement. Re-Bar slab reinforcement is to be structurally tied to the foundation (per section 4.1)

A frost protection depth of 450mm is required.

4.3 Drainage

All structures with slabs at or below the surrounding grade should be provided with perimeter drains constructed at the footing level. The drains should consist of a perforated pipe surrounded with drain-rock, encapsulated in a non-woven, needle punched filter fabric and backfilled with granular free draining soil. If the crawlspace slab is above the exterior grades, deletion of the perimeter drain can be considered.

The perimeter drainage system and the roof drain should be connected separately by gravity to sumps and then in tight lines to an on-site system.

Exterior building grade should be sloped at a minimum gradient of 1.5% to shed water away from the buildings.

5.0 CLOSURE

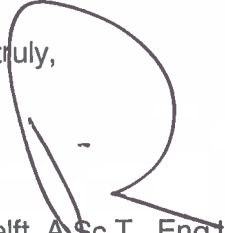
The recommendations presented in this report are based on the analysis of the results of the subsurface investigation and other information deemed relevant to the subject site. Variations in the subsurface conditions should be anticipated. If conditions differ from those presented in this letter are encountered during construction, Valley Geo should be notified immediately to examine these conditions and reassess our recommendations.

This letter was prepared for the exclusive use of Mr. Michael Watson and their agent for the purposed stated. It has been prepared in accordance with generally accepted engineering practices and no other warranty, express or implied, is made. Any use which a Third Party makes of this letter, or reliance on decisions to be made based on it, is the responsibility of the Third Party.

The acceptance of responsibility for the design/construction recommendations presented in this letter is contingent on adequate and/or full time inspection (as required, based on the site conditions at the time of construction) by a representative of the Geotechnical Consultant. Valley Geo will not accept any responsibility on this project for any unsatisfactory performance if adequate and/or full time inspection is not performed by a representative of Valley Geo.

We trust that the above information satisfies your requirements at this time. Please contact our office if you have any questions or require additional information.

Yours very truly,



Brad VanDelft, A.Sc.T., Eng.I.
Geotechnical Engineering - Principal



Narayan Abhyankar, FEC, P.Eng
Principal Geotechnical Engineer



Joel Blanco, P.Eng
Senior Geotechnical Engineer

Attachments:

Appendix A: Building Drawings and Site Location Plan

Appendix B: Test Pit Location Plan and Logs

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PROJECT NO. 18-128

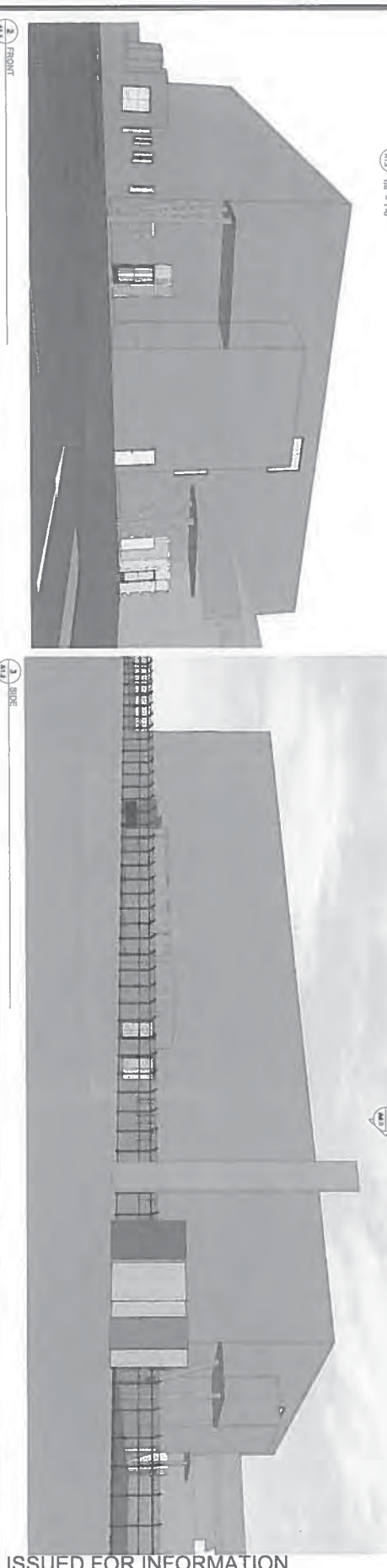
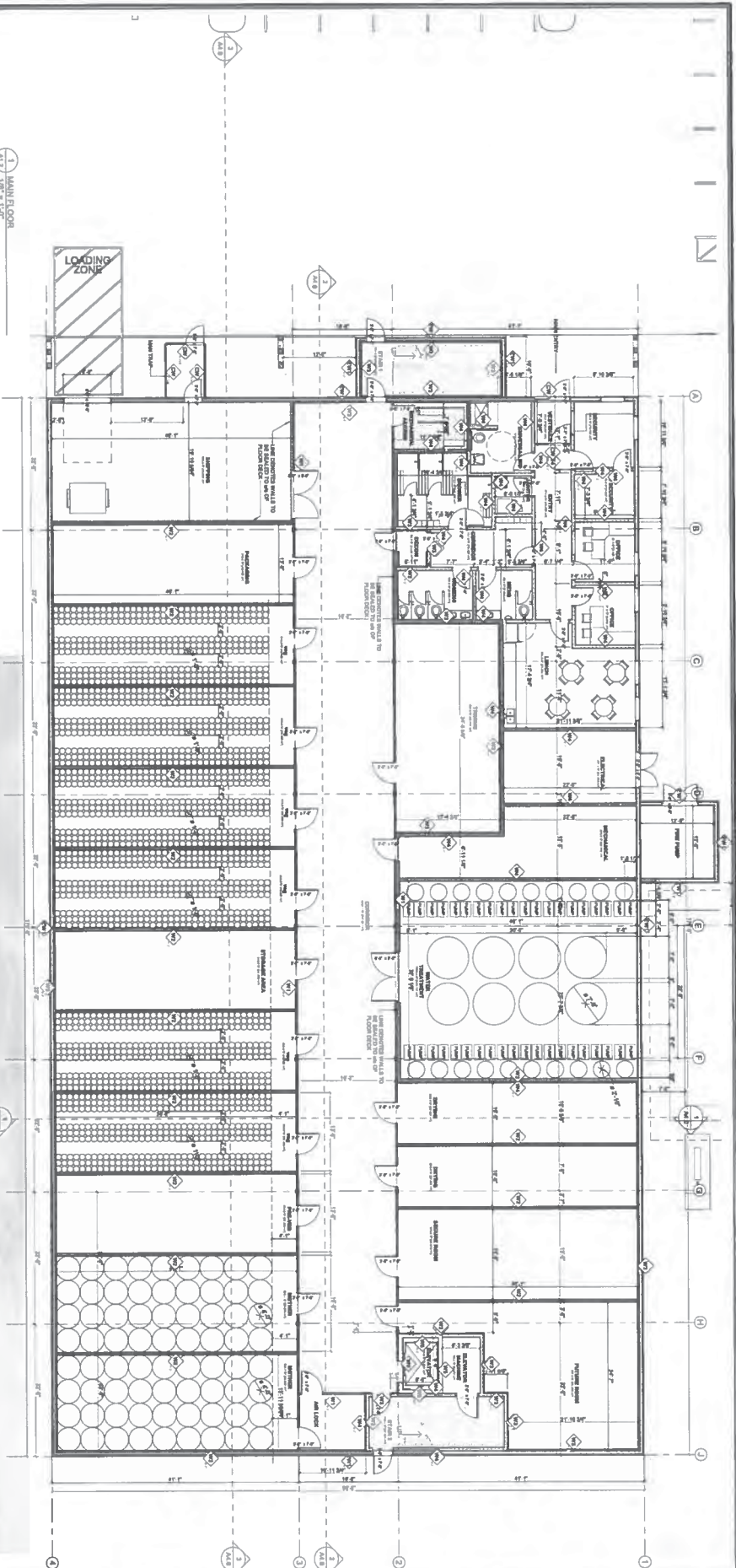
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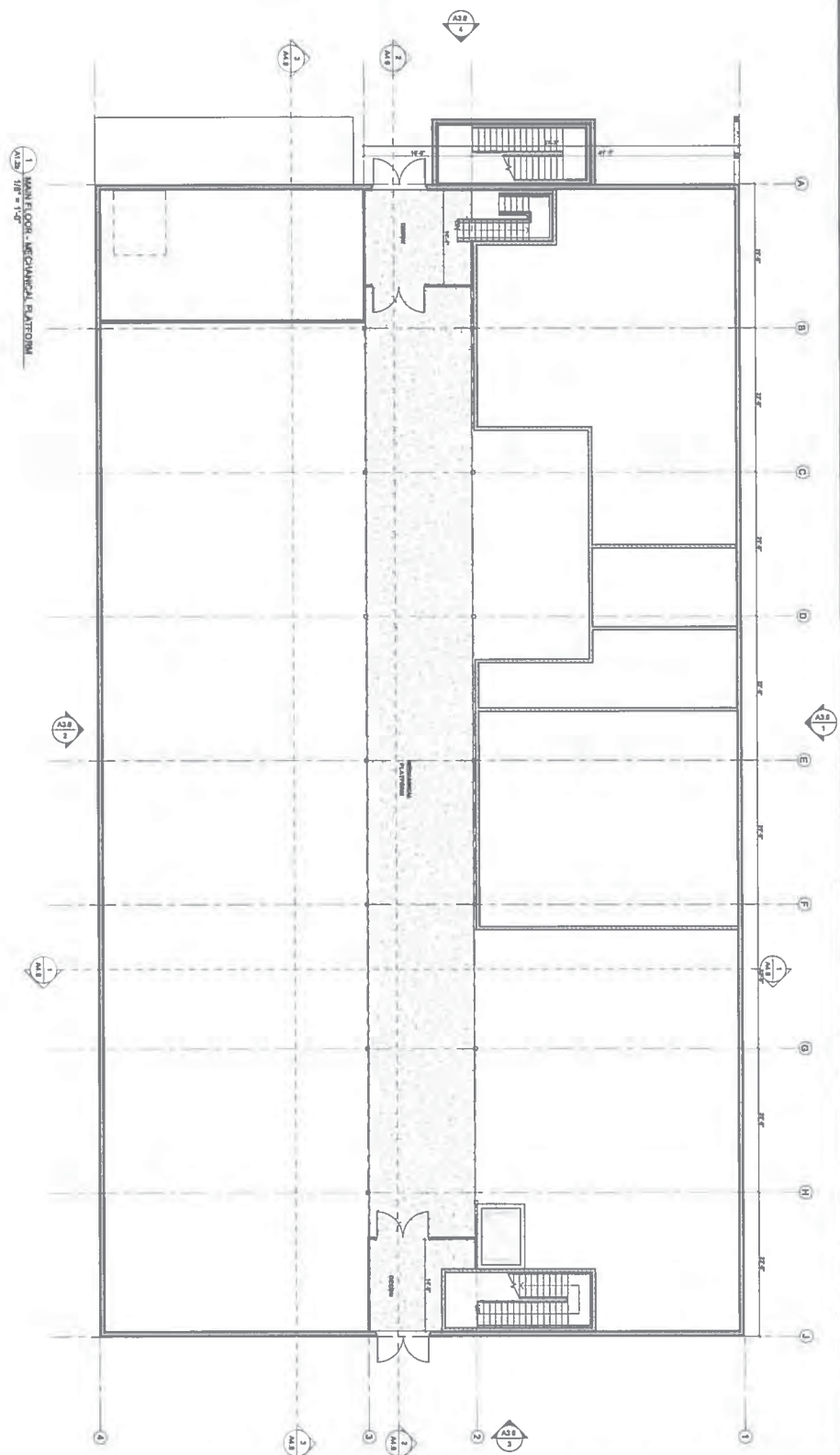
STRUCTURAL CONSULTANT
kerkhoff
Engineering Ltd.

PROJECT
Production
Facility
58551 A Bent
Road,
Hops, BC
V2Y 1A1
CLIENT
DBO Agriculture
Inc.

ISSUED FOR INFORMATION

DATE: 18-128
DRAWN BY: JDM
CHECKED BY: TK
SCALE: AS NOTED
DATE: SEP 13, 18
SHEET NO. A12
DATE: 18-128
DRAWN BY: JDM
CHECKED BY: TK
SCALE: AS NOTED
DATE: SEP 13, 18
SHEET NO. A12





PROJECT NO
18-128

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CONTRACTOR

STRUCTURAL CONSULTANT
kerkhoff
Engineering Ltd

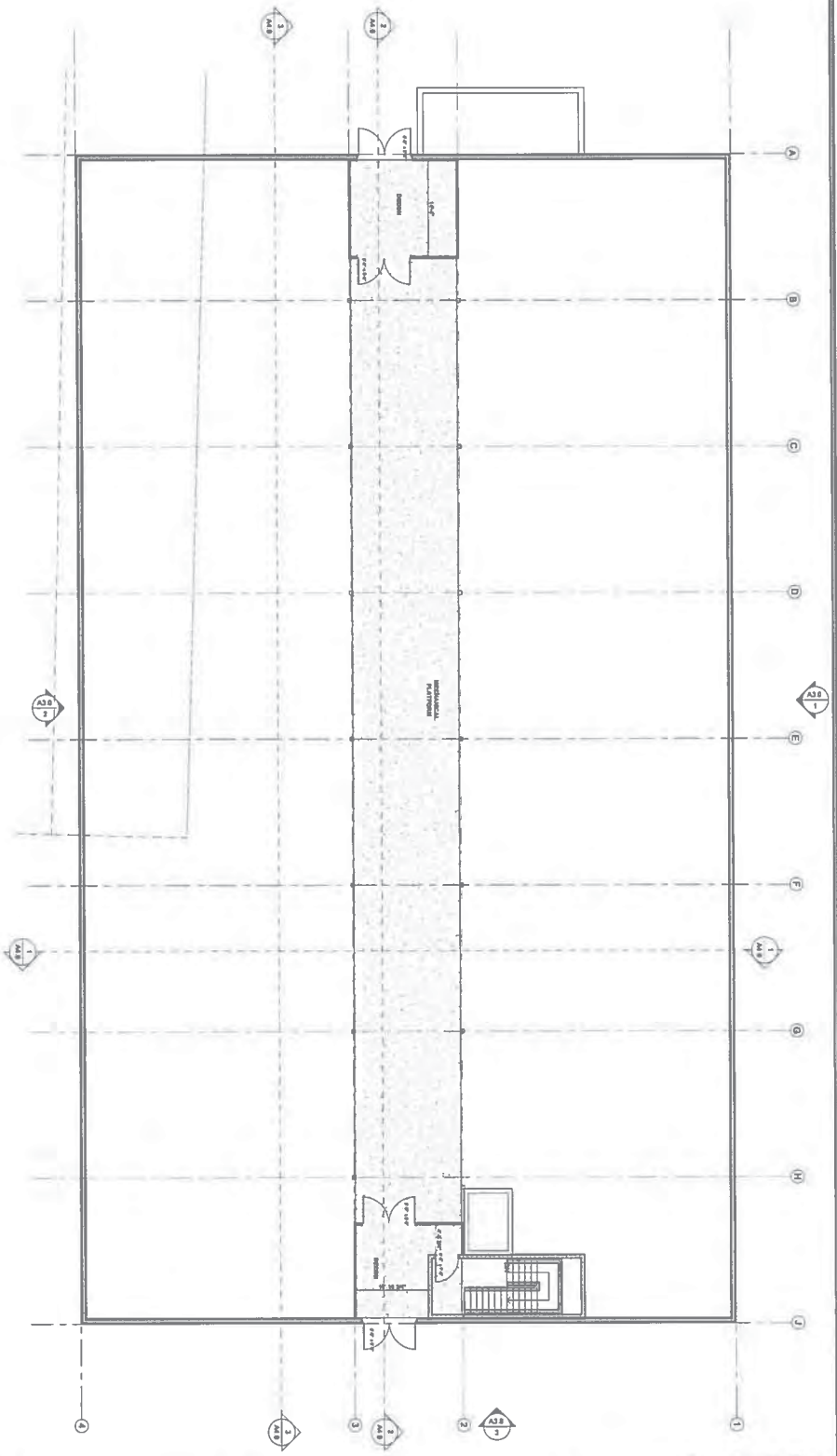
83

PROJECT
Production
Facility
A1.2b
Main Floor - Mechanical Platform

DATE
18-128
18-128
18-128

ISSUED FOR INFORMATION

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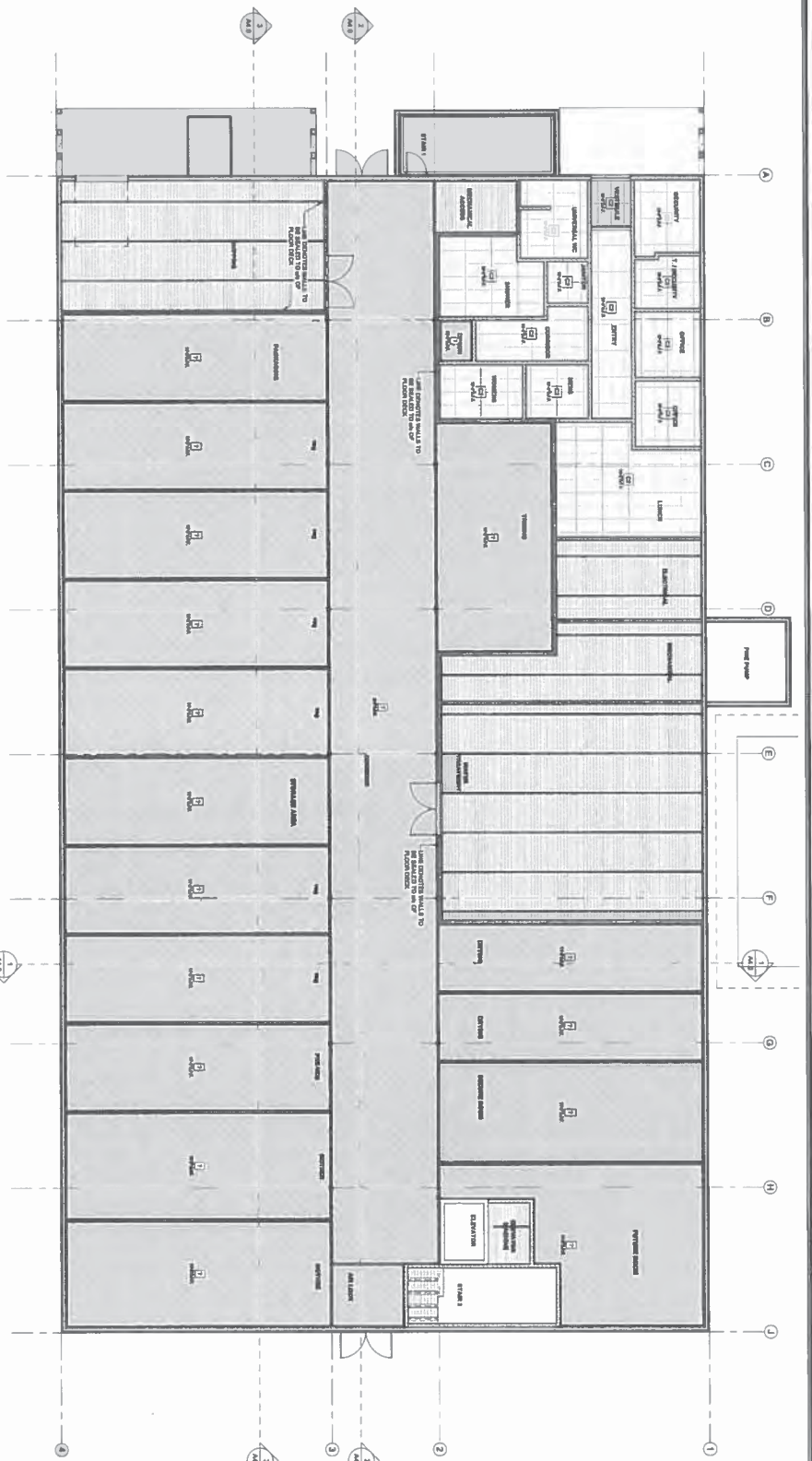


ISSUED FOR INFORMATION

PROJECT NO
18-128

ISSUES	
NO	DESCRIPTION
1	NOT FOR CONSTRUCTION
2	FOR CONSTRUCTION

STATIONARY CORNER
kerkhoff
Engineering Ltd.
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1 RCP MAIN FLOOR
1/8" = 1'-0"

PRODUCT NO. 18-128

NO.	DATE	DESCRIPTION
1	APR 17, 18	ISSUED FOR INFORMATION

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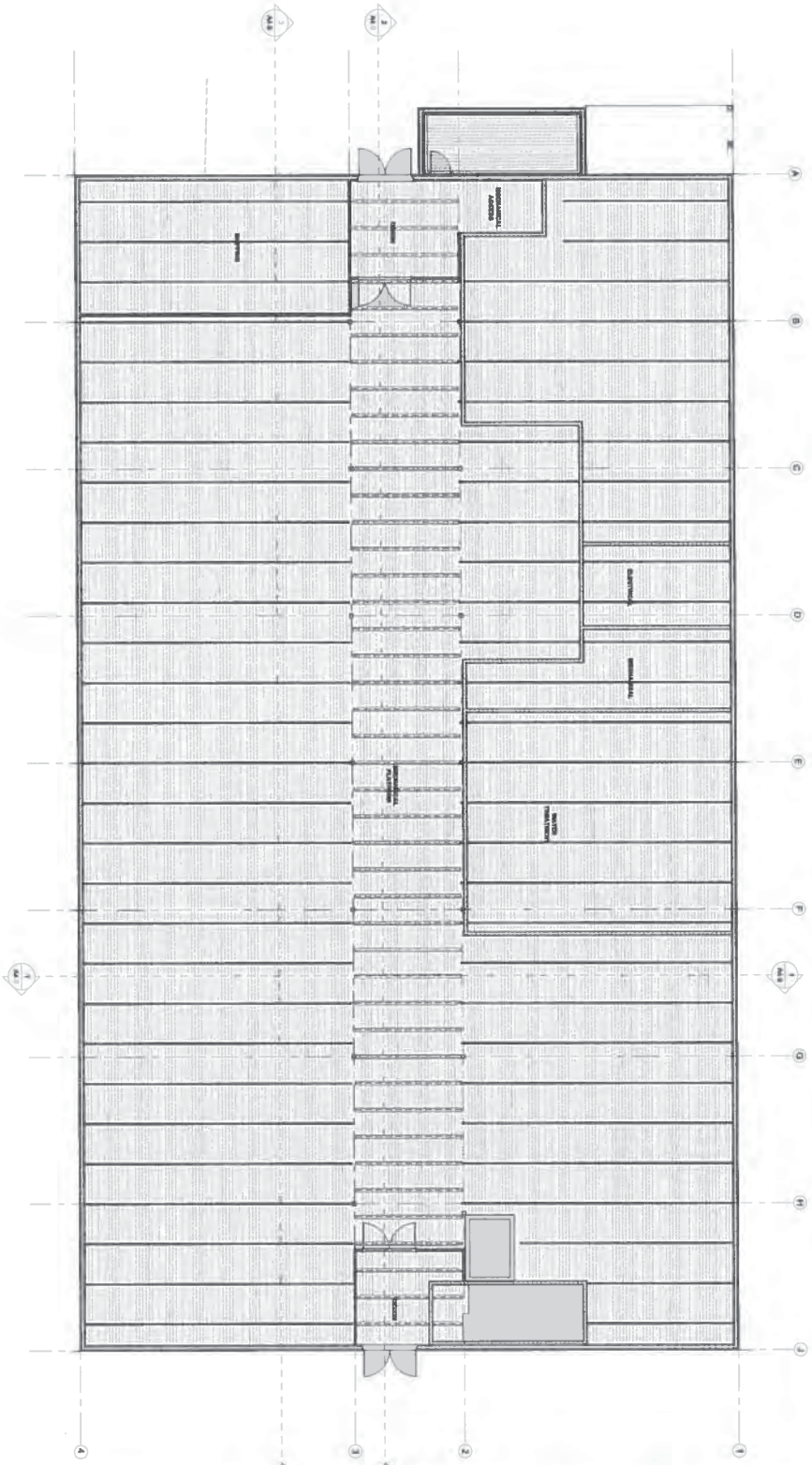
kerkhoff
Engineering Ltd.

DBO Agriculture Inc.
Production Facility
5555 A Dent Road
Hope, BC
RCP MAIN FLOOR

ISSUED FOR INFORMATION

DATE: 18-128
SCALE: 1/8" = 1'-0"
SHEET NO. A1.4

1 MAIN FLOOR PLATFORM - RCP



ISSUED FOR INFORMATION

PROJECT NO. 18-128

NO.	DATE	DESCRIPTION
1	SEP 11, 18	ISSUED FOR INFORMATION

ARCHITECTURAL CORP.
kerhoff
Engineering Ltd.

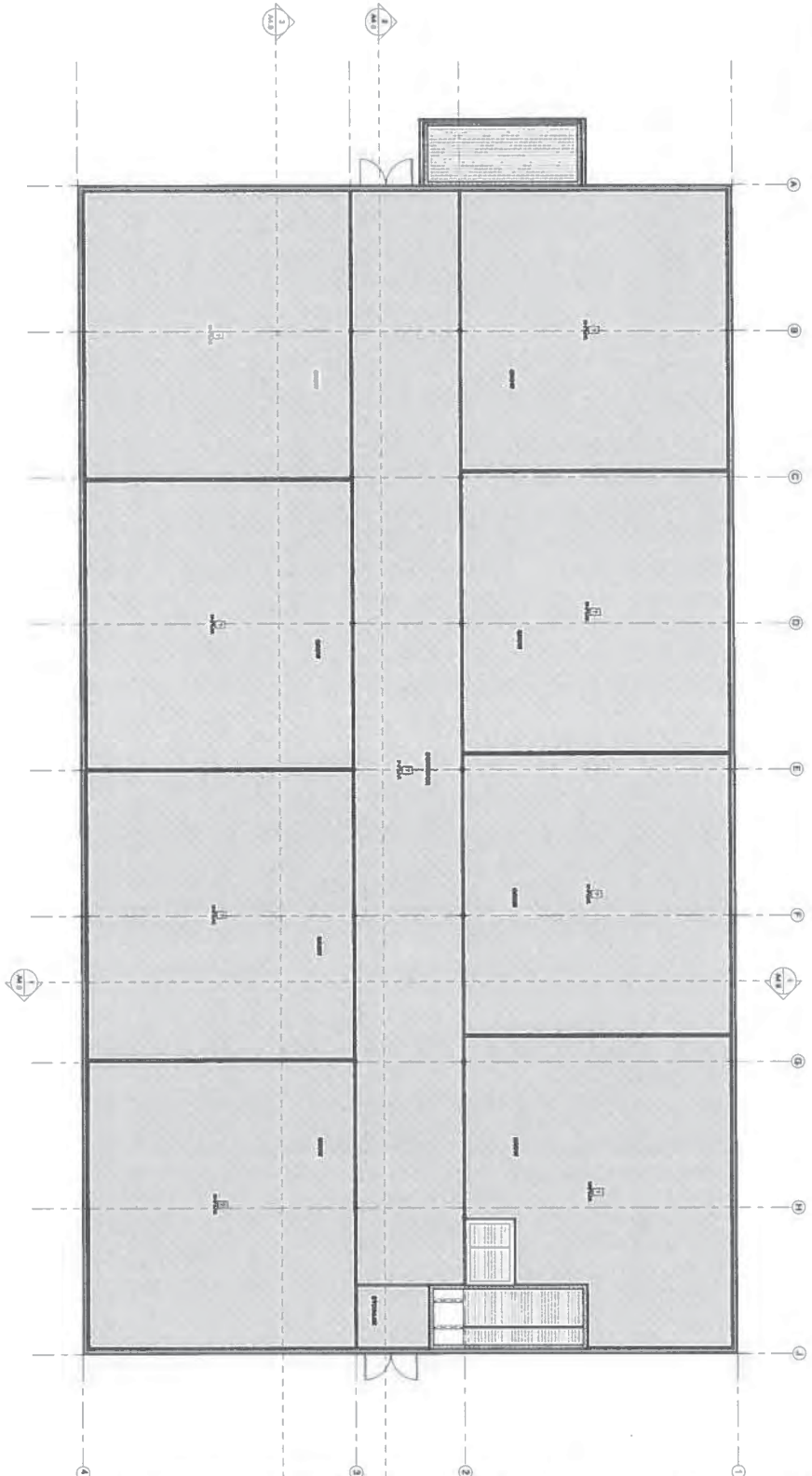
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CLIENT: DBO Agriculture Inc.

PROJECT: Production Facility
ADDRESS: 58551 A Dent Road, Hope, BC
TITLE: RCP - MAIN FLOOR MECHANICAL PLATFORM

DRAWN BY: JDR
CHECKED BY: TK
SCALE: AS NOTED
DATE: SEP 11, 18
SHEET NO. A1.4b
DATE PLOTTED: 10/26/18 3:41:50 PM

1 UPPER FLOOR - RCP
1/8" = 1'-0"



18-128

ISSUES
NO. DATE DESCRIPTION
1 APR 13, 18 REV 13, 18 ISSUED FOR INFORMATION

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kerkhoff
Engineering, Ltd.

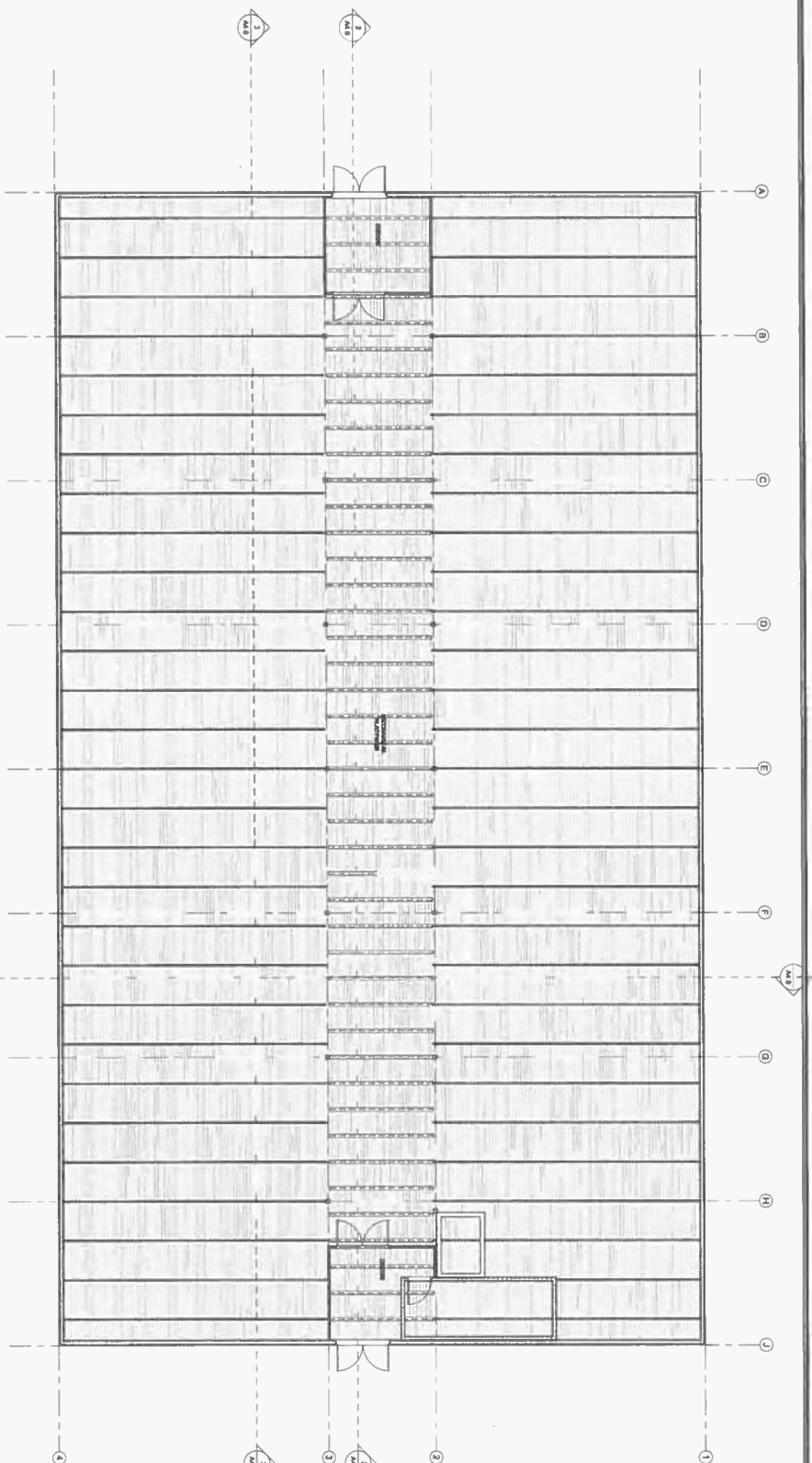
PROJECT
Production Facility
58551 A Dent Road,
Hope, BC
RCP - PRODUCTION
FLOOR

DATE PREPARED
18 SEP 13, 18
A1.5

ISSUED FOR INFORMATION

1 UPPER FLOOR PLATFORM - RCP
A1.5b 1/8" = 1'-0"

A1.5b



ISSUED FOR INFORMATION

PROJECT NO.
18-128

ISSUES
NO. | DATE | CHK. | DATE |
1. | 18 SEP 13 | 18 | ISSUED FOR INFORMATION

DESCRIPTION

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kerkhoff
Engineering Ltd

ARCHITECTURAL CONSULTANT
69
kerkhoff
Engineering Ltd

DBO Agriculture Inc.

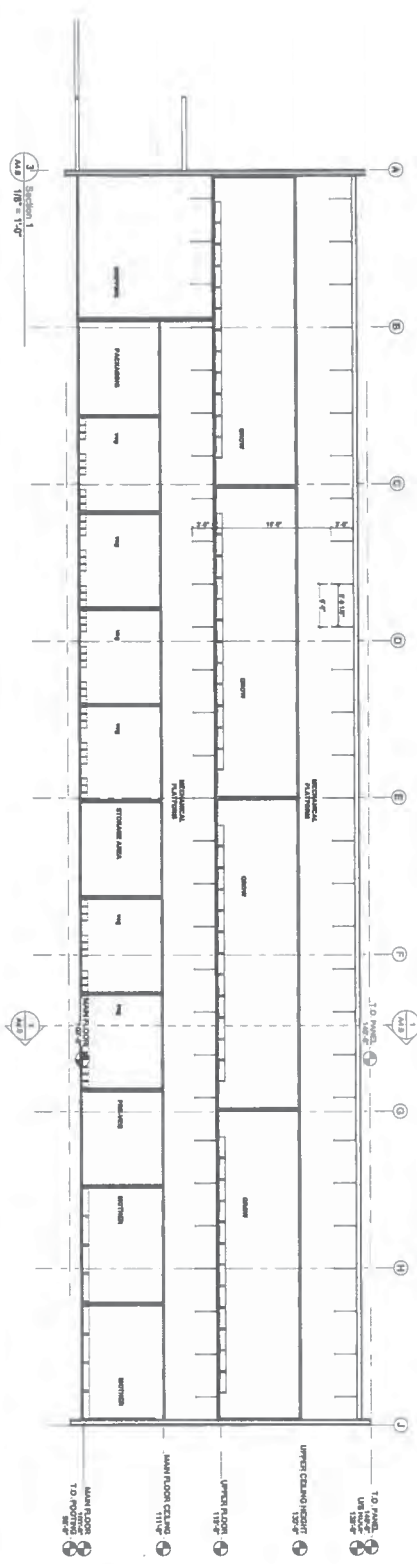
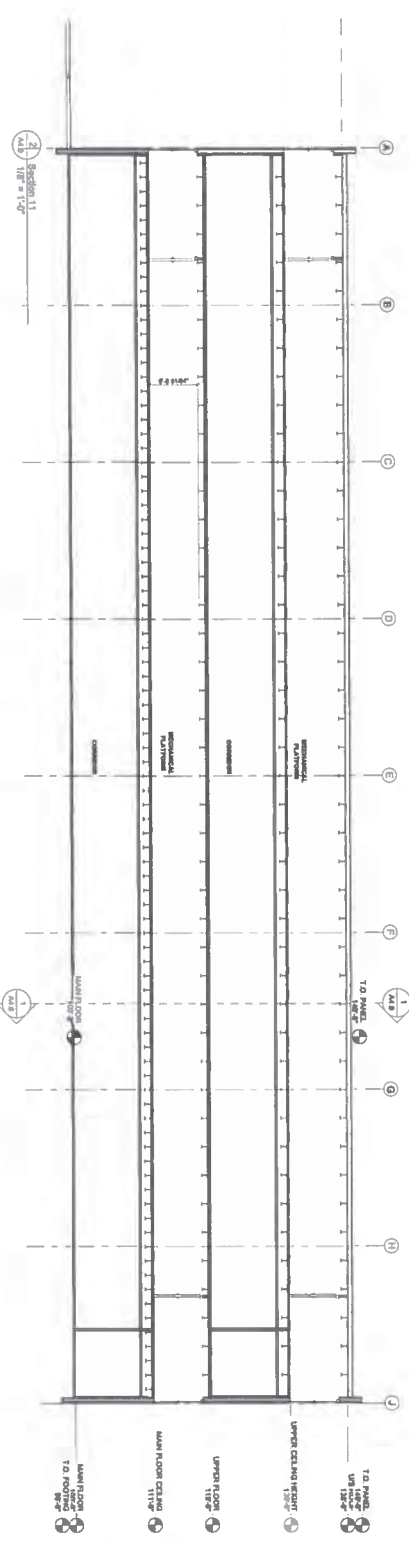
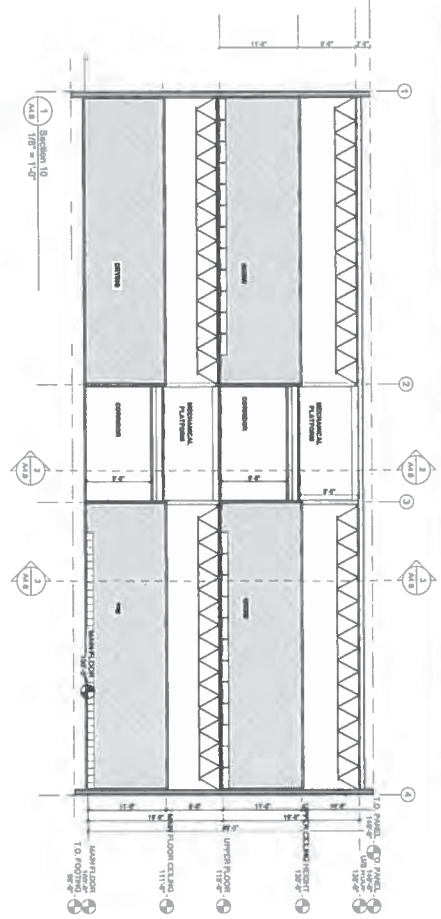
PROJECT
Production Facility

LOCATION
55551 A Dant Road,
Hops, BC

TITLE
RCP - PRODUCTION
FLOOR
MECHANICAL
PLATFORM

DESIGNED BY
CHKD BY
SCALE
DATE
A1.5b
18 SEP 13

DATE
18 SEP 13



ISSUED FOR INFORMATION

ISSUES			
NO.	DATE	DESCRIPTION	
1	AUG 29, 18	APPROVED FOR INFORMATION	
2	SEP 12, 18	APPROVED FOR LINE CREATION	

PROJECT NO. 18-128

INTERNATIONAL CONSULTING

kerkhoff

Engineering Ltd.

100 YEARS OF
INDEPENDENCE

THE Kerkhoff Group, led by Mr. Kerkhoff, has been active in the international engineering field since 1900. The Kerkhoff Group has a long and successful history of providing engineering services to clients in over 100 countries. The Kerkhoff Group is a leading provider of engineering services in the world. The Kerkhoff Group is a leading provider of engineering services in the world. The Kerkhoff Group is a leading provider of engineering services in the world.

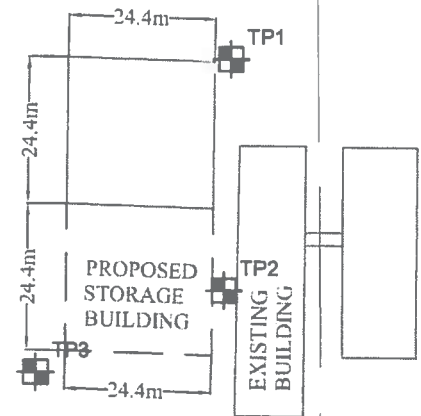
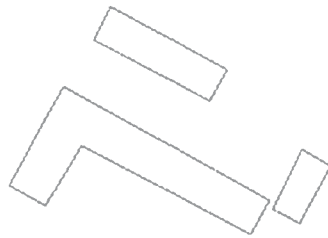
PRODUCTION Facility ADDRESS Road, Happa, BC TITLE BUILDING SECTION	PROJECT D&O Agriculture Inc. DESIGNER JOHN TYK SCALE: AS NOTED DATE: SEP 13, 18 SHEET NO. A4.0
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354

311

303



DENT ROAD



Unit 15 20279 97th Avenue
Langley BC, V1M 4B9
Phone: (604) 882-8475
Fax: (604) 882-8476

Client: MICHAEL WATSON

Location: 58551A DENT ROAD
LAIDLAW, BC

FILE No.

43921-01

DATE

OCTOBER 16, 2013

SEAL

TEST PIT LOCATION PLAN

Drawn:

EK

Dwg No.

Checked:

AJ

1

Scale:

1:1250

SUMMARY OF TEST PITS LOG

Project: 43921-01
Date of Investigation: October 7, 2013
Location: Lot 7, 58551A Laidlaw Road, Laidlaw, BC
Method of Excavation: Track Mounted Excavator
Logged By: Albert Jian

Test Pit No.	Depth (m)	Moisture %	Soil Conditions
1	0.0 – 0.8		Sand and silt FILL (loose)
	0.8 – 1.8		Brown SANDY SILT (moist) (Compact) Pocket Penetrometer: 2.7 kg/(cm) ²
	1.8-1.9		Grey SANDY GRAVEL (moist) (very dense) Pocket Penetrometer: > 3.5 kg/(cm) ² -Test pit discontinued at 1.9m -No water seepage encountered
2	0.0 – 0.6		Sand and silt FILL (loose)
	0.6 – 1.5		Brown SANDY SILT (moist) (Compact)
	1.5 – 1.7		Grey SANDY GRAVEL (moist) (very dense) - Test pit discontinued at a depth of 1.7 - No water seepage encountered

Test Pit No.	Depth (m)	Moisture %	Soil Conditions
3	0.0 - 0.5		Topsoil: organic SILT (wet) (loose)
	0.5 – 1.7	37.4	Brown CLAYEY SILT (moist)(very stiff)
	1.7 – 1.8	9.3	Grey SANDY GRAVEL (moist) (very dense) Pocket Penetrometer: > 3.5 kg/(cm) ² -Test pit discontinued at 1.9m -No water seepage encountered



To:	From
Michael Watson	Cindy Lipp, R.P. Bio.
Company:	MCSL Branch
c/o NRG Consulting: Craig Garden	2111
Re:	Date
Environmental report: Riparian setbacks	2018/09/19
	File Number
	2111-05315-00

The McElhanney Consulting Services Ltd. (McElhanney) qualified environmental professional (QEP) was requested to review the setback requirements from a swale within the Agricultural Land Reserve (ALR) next to which non-farm commercial agricultural buildings will be situated. The development is located at 58551A Dent Road, Laidlaw, BC. The QEP is practiced in watercourse classifications and characterizations and is knowledgeable about the provincial *Riparian Areas Regulations* (RAR), ALR requirements and has discussed requirements with the Fraser Valley Regional District (FVRD). The QEP has reviewed the site and the legislation applicable to this project.

Local Watercourses

The development site is located on low lying, relatively flat land (elevations between 31 and 28 m) of the floodplains of the Fraser River and Lorenzetta Creek (Valley Geotechnical 2013). The channel of Lorenzetta Creek lies 185 m from the proposed building area at its closest point. Lorenzetta Creek is prone to flooding. The provincial database (iMapBC 2018) reports that beaver dams on the creek create an obstacle to fish passage and may promote flooding. Despite such obstacles to fish passage, recent studies at Lorenzetta Creek found several species of salmonids in the creek such as Rainbow trout and steelhead (*Oncorhynchus mykiss*), Coho Salmon (*O. kisutch*) and Cutthroat trout (*O. clarkii*) (iMapBC 2018). A review of the provincial database for terrestrial and aquatic species did not find any species at risk associated with this creek system (iMapBC 2018).

Remnant Channel

A topographic swale or channel is evident on the property. The swale is a shallow depression on the landscape, 11 to 14 m wide at top of bank, and about 1.5 to 2 m deep (*Figure 1*). It is a remnant topographic feature as part of an alluvial fan of Lorenzetta Creek. Lorenzetta Creek was diked a few decades ago so that this swale no longer carries flows from Lorenzetta Creek. Overland and surface flows of water from the adjacent mountainside spread out across the landscape, flooding several of the local farm properties in the winter during heavy rainfalls. This swale collects some of this overland flow from the base of the mountain and may also receive some backup flood waters from the adjacent properties through the culvert at Dent Road. The swale has no natural boundary, high water mark, bed or scour to indicate that water flows through this channel. There is no evidence of sorting or rafting of material or vegetation characteristic of high moisture or water filled conditions. In the area of the proposed building development the swale does have a top of bank emphasized by the creation of farm roads within the property.

Vegetation found in the swale (grasses and herbs) are not species typical of streams or wetlands that would provide evidence that water flows through the swale at any time of year. However, the property owner has indicated that the swale pools water in the wintertime. Water within the swale at this time may be due to overland flooding on a neighbour's property and improperly sized drainage systems and culverts.



Figure 1. Shallow and wide swale which is a remnant channel of Lorenzetta Creek, has no visible evidence of water flow. Photo looking northward from Dent Road.

Though this swale was historically a part of a stream system, it no longer has the character of a stream since it has been cut off from the flows the main creek channel. Water pools in this swale during heavy rains of winter only and otherwise is dry. The swale does not provide fish habitat, but through a culvert on Dent Road, drainage of the land through the Dent Road culvert, water is seasonally conveyed from the swale to fish bearing Lorenzetta Creek.

This swale has now become a drainage feature of the farm property and as such, under the *Riparian Area Regulation* (RAR) may be best described as drainage ditch that seasonally conveys water to fish bearing streams but has no headwater or significant source of groundwater (MOA 2011). There is no 'riparian' vegetation.

Applicability of RAR and riparian setbacks

The Province provides guidance for determine of building setbacks from watercourses in farming areas (MOA 2011) for the protection of fish habitat. The swale on this property (natural and dry due to diking of the main creek channel of Lorenzetta Creek) does not meet any of the classification standards for watercourses described in the guidance document. However, the swale most closely resembles the definition of a constructed channel which is a drainage channel that carries drainage water from more than one property but does not carry water from headwaters or significant sources of groundwater.

Under RAR for residential, industrial or commercial developments, the riparian setback determinations for constructed ditches which convey water to fish bearing habitat is 2 times the channel width or a maximum of 10 m (BC 2004). Under riparian protection guidelines applied to farming areas such as facilities involved in greenhouses, crop storage, and on-farm product preparation (Category 4 farm buildings) the setback from ditches is 5 m (MOA 2008). In the case of this proposed development, the building is considered a commercial development, non-farm

use, and is subject to a 10 m setback from the top of bank of this swale. The existing farm roads and buildings are exempt from the RAR (MOA 2011).

To properly locate the setback boundaries a QEP is required to flag the top of bank of the swale for BCLS surveyors to survey and draw onto the proposed plans to demonstrate that the development is outside of the setback. *Figure 2* below approximates the location of the proposed riparian protection setbacks with respect to the proposed location of the buildings.

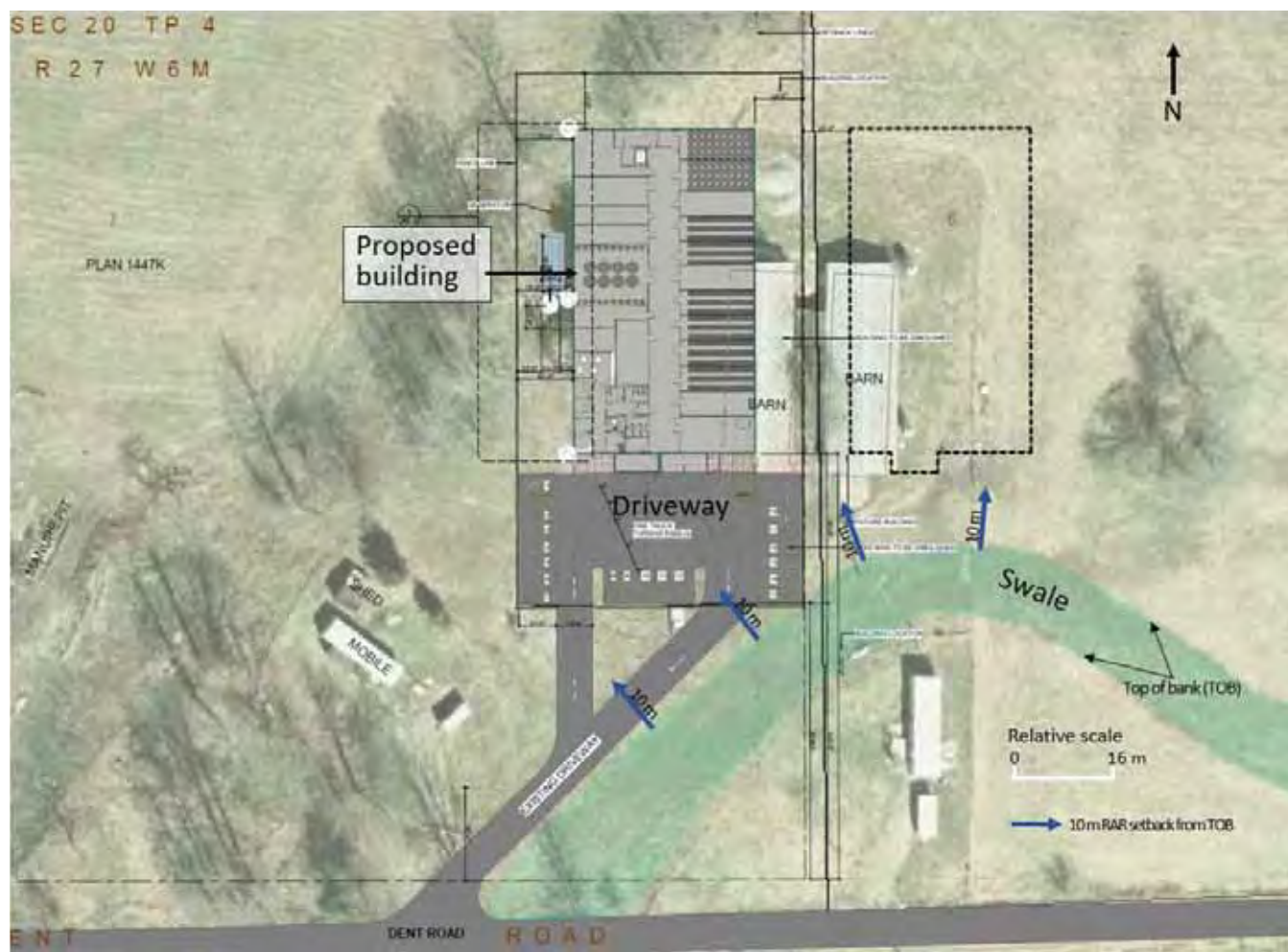


Figure 2. Proposed building placement with respect to the top of bank of the swale and recommended riparian setback distance demonstrated. Scale is relative.

Floodplain

The property has been determined to be in the floodplain of Lorenzetta Creek. The FVRD has required an elevation for buildings of more than 3 m above the natural boundary of Lorenzetta Creek. The plan is to provide an additional 0.3 m elevation to the building site. Table 2 of the MOA (2008) factsheet outlines the minimum provincial guidelines for setbacks and flood control levels for farm dwellings which includes guidelines for commercial and industrial buildings on farmland that are not used for agricultural purposes. In situations where protection is provided by standard dikes and where floodproofing is impractical, the RAR process determines the setback for buildings from the watercourse (MOA 2008).

In Summary

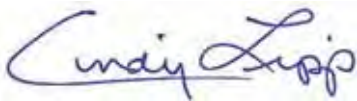
The QEP has determined that a 10m setback for buildings from the top of bank of the swale is sufficient to protect downstream fish and fish habitat. There is no setback requirement for the existing farm roads if they remain gravelled and unpaved (do not become an impervious surface).

In Closing

We hope this provides the information needed for your reporting. If you have any questions, please feel free to contact me.

Regards,

McELHANNEY CONSULTING SERVICES LTD.



Dr. Cindy Lipp, R.P.Bio.
Senior Biologist, QEP
clipp@mcelhanney.com | 604-424-4866

References

iMapBC. 2018. iMapBC 2.0. Accessed from URL: <https://maps.gov.bc.ca/ess/hm/imap4m/>

Ministry of Agriculture (MOA). 2011. Agricultural Building Setbacks from Watercourses in Farming Area. Order NO. 823, 400-1 February 2011.

Ministry of Agriculture (MOA). 2008. Flood Construction Levels and Setbacks for Farm Building Situations. Order No. 823.400-2. July 2008.

Province of BC (BC). 2004. *Riparian Areas Regulation*. BC Reg. 376/2004. Accessed from URL: http://www.bclaws.ca/civix/document/id/complete/statreg/376_2004

BUILDING CODE COMPLIANCE REPORT

FOR

Production Facility

58551 A Dent Road, Hope, BC

Prepared for:

DBO Agriculture Inc.

Revision 2, September 13, 2018

Prepared by:

Kerkhoff Engineering Ltd.

Theo Kerkhoff, P.Eng

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INTRODUCTION

This report is intended as a design aid and reference tool for the project team and the Fraser Valley Regional District (FVRD) in their review of this project. All Code references in this report are to the 2012 BC Building Code, unless otherwise indicated. It is the responsibility of the registered professionals for this project to ensure that the life safety and fire protection requirements of Part 3 of the code are incorporated into this project. This report is not intended to be used as a contract document.

This report is based on the architectural drawings prepared by Kerkhoff Engineering Ltd. (project no. 18-128, dated September 13, 2018) and summarizes the approach to Code compliance for this project.

PROJECT DESCRIPTION

The project is sited on the North side of Dent Road between Lorenzetti creek and the base of the mountain on the East. The existing agricultural barn on the east property line will be demolished and replaced with the new facility.

Bylaw Review

Area B – Zoning Bylaw No. 85

203- Off Street Parking and Loading Spaces (see division 19 & Schedule A)

Agricultural Zone Ag-1

403 Setbacks

- a) Highway: No building or part thereof, mobile home, or unit, modular home or structure shall be located closer than 25feet to the right of way boundary of a road allowance or flanking street, or closer than 58feet to the centre line of said allowance or street, whichever is the greater distance from the road or street centre line
- b) Side and Rear: No building or part thereof, shall be located closer than 25 feet to any side or rear lot line.

Division 19 – Off Street Parking and Loading

1901 Off street parking site specifications

- a) The width of each parking space shall be not less than 8'-6", the height shall be not less than 7ft, and the length shall be not less than 20ft.
- b) A parking space which adjoins a fence or structure greater than one foot in height shall be increased in width to no less than 9'-6".
- c) Minimum driveway width for 90deg. parking is to be 25ft.
- d) Where driveway width is less than 18ft one way traffic only shall be permitted.

1902 Off street loading site specifications

- a) One off street loading space shall be provided for every 20,000 sq.ft or any part thereof of gross floor area
- b) Each off street loading space shall be no smaller in area than 375 sq.ft, provided that the width of each such space shall be no less than 10ft, and the height no less than 14ft.
- c) Every off street loading space shall be either hard surfaced or gravelled.

Building description:

The building is 98'-8" wide x 176ft long, 2 stories. The building will be used for the growing and production of cannabis, with plants starting on lower floor, being brought up to upper floor and then processed back on the main floor where it will be stored in the vault before shipping. There will be a very small office area on the lower floor. The building will not be open to the public.

FIRE PROTECTION PROGRAM

The following is a summary of the approach to compliance with Part 3 of the BC Building Code 2012.

BUILDING CHARACTERISTICS

Summary of Building Characteristics with respect to the application of Building Code Subsection 3.2.2 the major Code characteristics is as follows:

Building Area = 98'-8"x176 = 17,365sq.ft (1,613.3 sq.m)

Mechanical room = 13'-8"x12'-10" = 175.4 sq.ft (16.3 sq.m)

Stair tower = 10'-0"x25'-2" = 251.7 sq.ft (23.4 sq.m)

Total Building Area for 3.2.2 purposes = 1613.3 + 16.3 + 23.4 = **1,653sq.m** (17,792.74sq.ft)

Total main and second floor area = 1653 + 1613.3+23.4 = 3,289.7sq.m (35,410sq.ft)

	Construction Article	
	3.2.2.61	3.2.2.77
Major Occupancy	D	F2
Sprinklers	yes	yes
Construction type	NC/C	NC/C
Roof	N/A	N/A
Floors	3/4hr if C	3/4hr if C
Mezzanines	none	none
Load Brg Walls /Columns	3/4hr if C	3/4hr if C
Max Bldg Area	2,400sq.m	1,800sq.m

Legend:

SASA Same as supported assembly

NC Non-Combustible

C Combustible

N/A Not Applicable

Additional notes:

1. The building can not be designed with interconnected floor space as 50% building area exceeds permitted areas.

CONSTRUCTION REQUIREMENTS

Building Size & Construction – In accordance with Subsection 3.2.2, the building will be constructed in accordance with Articles 61 & 77.

Exit Separations – Exits will be separated from the remainder of the building by a fire separation having a fire resistance rating not less than 45min in accordance with Article 3.4.4.1

Janitors storage rooms do not require a separation in a sprinklered building in accordance with 3.3.1.21 (3)

Service Room Separations – Service rooms containing fuel – fired appliances will be separated from the remainder of the building by a fire separation having a fire resistance rating of at least 1 hr in accordance with Sentence 3.6.2.1(1)

Electrical Closets – Electrical closets will be separated from the remainder of the floor area including a public corridor by a fire separation having a fire resistance rating of at least 1h in accordance with Article 3.3.1.4

Closures – Closures in fire separations other than suite doors, and fire stopping materials for service penetrations, will have a fire protection rating in accordance with Table 3.1.8.4, reproduced below.

Table 3.1.8.4 (Forming part of Sentences 3.1.8.4(2) and 3.1.9.1 (1))

Fire – resistance Rating of Fire Separation	Minimum Fire Protection Rating of Closure
---	---

45 min	45 min
1 h	45 min
1.5 h	1 h
2 h	1.5 h
3 h	2 h
4 h	3 h

Hold – open Devices – Hold open devices are permitted but must be designed to release upon a signal from the building fire alarm system.

Firestopping – Piping, ducts, wiring and similar penetrations through a required fire separation will be tightly fitted, or the opening will be sealed at the penetration by listed fire stopping materials in compliance with Subsection 3.1.9.

Fire Dampers – Shall be installed as per 3.1.8.7 for ducts that penetrate an assembly required to be a fire separation

EXPOSURE ANALYSIS

The percentage of unprotected openings in the exterior walls of the tower has been reviewed for conformance with Table 3.2.3.1.E “Unprotected opening Limits for a Building or Fire Compartment that is Sprinklered Throughout”. Area calculated by building width x 38ft(11.59m) to underside of roofing. As per sentence (8) A limiting distance equal to half the actual limiting distance shall be used as input where the time from receipt of notification of a fire by the fire department until the arrival of the first fire department vehicle at the building exceeds 10min. All LD values shows include 50% factor

Fire Compartment	L/H	Elev.	Area EBF (sq.m)	LD (m)	UPO(%) Permitted	UPO(%) Proposed	Construction Requirements	Type of Cladding
	2.6	North	348.8	34.4	100	3.4	None	C/NC
	4.9	East	657.5	3.8	13.2	0.0	2hr NC	NC
	2.6	South	348.8	33.55	100	9.3	None	C/NC
	4.9	West	657.5	23.6	100	1.7	None	C/NC

FIRE DEPARTMENT ACCESS

The proposed development has its main entry access on the South side of the site accessed off the existing driveway on Dent Road.

Access to above grade stories – for every storey that is not sprinklered, direct access for fire fighting shall be provided from the outdoors to every storey. One window is located on the second floor level on south side of building in line with the corridor. An access walk way has been provided on the East side of the building for access into each second floor room. This shall be approved by the fire department as does not comply with requirements of section 3.2.5.1. The access opening shall be 750 wide x 1,100mm high and 900mm above inside floor level.

Access routes – As our building is greater than 600sq.m in building area access routes shall be provided to the principal entrance. The access route shall be located minimum 3m from the principal entrance and not more than 15m.

The access route shall have a clear width of not less than 6m, centreline radius of 12m, overhead clearance of 5m, change of gradient not more than 1 in 12.5 over a minimum distance of 15m, have turnaround facilities for any dead end portion of the access route more than 90m long.

Every building shall be provided with an adequate water supply for firefighting in accordance with 3.2.5.7 and appendix A.

AUTOMATIC SPRINKLER SYSTEM

An automatic fire sprinkler system is required to be installed in conformance with NFPA 13 (3.2.5.12)

All service spaces shall be sprinklered in conformance with 3.2.5.14

Portable fire extinguishers shall be installed as per BC Fire code 3.2.5.16

If a fire pump is installed, it shall be installed in accordance with the requirements of NFPA 20.

STANDPIPE SYSTEM

A standpipe and hose system is not required

FIRE ALARM AND DETECTION SYSTEMS

A fire alarm system shall be installed in buildings in which an automatic sprinkler system is required (3.2.4.1)

The fire alarm system shall be a single or 2 stage system for Group F2/D occupancy 3.2.4.3

An annunciator shall be installed in close proximity to a building entrance that faces a street or an access route for fire department vehicles (3.2.4.9)

EXIT SYSTEMS

Each of the floor areas will be served by at least two exits.

Distance Between Exits – Sentence 3.4.2.3(2) requires exits to be separated by half the maximum diagonal dimension of the floor area but need not be more than 9m in a floor area served by a public corridor.

Travel Distance to an Exit – In a sprinklered building, Clause 3.4.2.5(1)c) permits a maximum travel distance of 45m(147.5ft) from within the floor area to an exit, and where an egress door from a suite or room leads to a public corridor the distance may be measured from the egress door in accordance with Sentence 3.4.2.4(2)

Protection of Exterior Exit Doors – Sentences 3.2.3.13(2) and (3) require protection of exits, exit stairs, and exit ramps, where such exits, stairs or ramps are exposed to unprotected openings within 3m horizontally, 10 m below, or 2m above. Both sentences required that the opening protection consist of glass block, wired glass, or a closure conforming to the requirements of

Article 3.2.3.12(4). The openings consist of windows. However closures are not practical for the windows exposing exits, and as such an equivalent approach to meeting the Code requirements shall be completed.

Rooms Opening into Exits – Service rooms including elevator machine rooms, mechanical rooms, electrical rooms will not open directly into an exit in accordance with Article 3.4.4.4. Accordingly, a vestibule will be provided between such rooms and the exit.

Occupant Load and Exit Capacity – The occupant load of floor areas will conform with the minimum design requirements of Subsection 3.1.17, maximum occupant load of 10 persons. The capacity of exits based on the occupant load of floor areas and suites will exceed the requirements of Subsection 3.4.3.

Based on the proposed Industrial use of manufacturing/process rooms of 4.6sq.m/person, 3,289.7sq.m /4.6sq.m = 715 persons. Based on occupant loads provided by the owner, the building will only see a maximum of 20 personnel at any given time. A permanent sign indicating the occupant load shall be posted in a conspicuous location.

Exit Width – As per table 3.4.3.2A

Exit corridors	1,100mm
Ramps	1,100mm
Stairs	900mm
Doorways	800mm

Headroom clearance – as per Subsection 3.4.3.4 the headroom clearance for doorways shall be not less than 2,030mm.

Stairs to be in accordance with Section 3.4.6

Landings shall be provided where vertical rise is greater than 3.7m between floors. The length and width of a landing shall be at least the width of the stairway, and need not be more than 1,100mm.

Stairs shall have a run of not less than 280mm, close back riser with a rake back of not more than 38mm.

See typical stair detail for hand rails, rise/run, tactile warning, etc.

HEALTH REQUIREMENTS

Based on Table 3.7.2.2.A for a total of 20 employees a minimum of one water closet shall be provided for each sex, and a universal toilet room.

One lavatory shall be provided in each washroom equipped with automatic or lever type handles.

Floor drains shall be installed in washrooms containing urinals equipped with an automatic flushing device.

LIGHTING AND EMERGENCY POWER SYSTEMS

Emergency lighting shall be provided at all principal routes providing access to exit in open floor areas. See electrical drawings for lighting details.

**FRASER VALLEY REGIONAL DISTRICT
ELECTORAL AREA SERVICES COMMITTEE
OPEN MEETING MINUTES**

Thursday, October 11, 2018

1:30 pm

FVRD Boardroom, 45950 Cheam Avenue, Chilliwack, BC

Members Present: Director Bill Dickey, Electoral Area D, Chair
Director Terry Raymond, Electoral Area A
Director Dennis Adamson, Electoral Area B
Director Alec Niemi, Electoral Area C
Director Ray Boucher, Electoral Area F
Director Al Stobbart, Electoral Area G
Director Taryn Dixon, Electoral Area H

Absent: Director Orion Engar, Electoral Area E

Staff Present: Paul Gipps, Chief Administrative Officer
Mike Veenbaas, Director of Financial Services
Suzanne Gresham, Director of Corporate Initiatives
Tareq Islam, Manager of Engineering & Community Services
Margaret-Ann Thornton, Director of Planning & Development
Graham Daneluz, Deputy Director of Planning & Development
Barry Penner, Director, EA Special Projects
Jennifer Kinneman, Manager of Corporate Affairs
Jaime Schween, Manager of Corporate Administration
Kristy Hodson, Manager of Financial Operations
Sterling Chan, Manager of Engineering & Infrastructure
Julie Mundy, Planning Technician
Matthew Fang, Network Analyst I
Amanda Molloy, Executive Assistant to CAO and Board
Maggie Mazurkewich, Communications Assistant (Recording Secretary)

1. CALL TO ORDER

Chair Dickey called the meeting to order at 1:30 p.m.

2. APPROVAL OF AGENDA, ADDENDA AND LATE ITEMS

Moved By BOUCHER

Seconded By NIEMI

THAT the Agenda, Addenda and Late Items for the Electoral Area Services Committee Open Meeting of October 11, 2018 be approved;

AND THAT all delegations, reports, correspondence and other information set to the Agenda be received for information.

CARRIED

3. DELEGATIONS AND PRESENTATIONS

None

4. MINUTES/MATTERS ARISING

4.1 Minutes of the Electoral Area Services Committee Meeting - September 5, 2018

Moved By RAYMOND

Seconded By STOBART

THAT the Minutes of the Electoral Area Services Committee Open Meeting of September 5, 2018 be adopted.

CARRIED

4.2 Draft Cultus Lake Advisory Planning Commission - September 19, 2018

The draft minutes of the Cultus Lake Advisory Planning Commission of September 19, 2018 was provided for information.

5. CORPORATE ADMINISTRATION

No Items.

6. FINANCE

No Items.

7. ENGINEERING & UTILITIES

No Items.

8. PLANNING, BUILDING INSPECTION AND BYLAW ENFORCEMENT

8.1 Appointment of Building Official, Building Inspector and Bylaw Enforcement Officer

Moved By STOBART

Seconded By DIXON

THAT the Fraser Valley Regional District Board appoint Ian Crane and John Chace as "Building Official," "Building Inspector" and "Bylaw Enforcement Officer" of the Fraser Valley Regional District effective immediately.

CARRIED

8.2 Application for Development Variance Permit 2018-29 to reduce the interior side lot line setback to permit the construction of an accessory structure (detached garage) at 35300 Riverside Drive, Area "F"

Moved By BOUCHER

Seconded By DIXON

THAT the Fraser Valley Regional District Board issue Development Variance Permit 2018-29 for the property located at 35300 Riverside Drive, Electoral Area F, to reduce the interior side lot line setback from 1.5 metres (4.9 feet) to 0.6 metres (2 feet), clear to sky, to facilitate the construction of an accessory structure (detached garage), subject to consideration of any comments or concerns raised by the public.

CARRIED

8.3 Application for Development Variance Permit 2018-30 to vary the height regulation in the Hillside Residential (R-4) zone at 309 Munroe Avenue, Electoral Area H – Cultus Lake Park

Moved By DIXON
Seconded By BOUCHER

THAT the Fraser Valley Regional District issue Development Variance Permit 2018-30 for the property located at 309 Munroe Avenue, Electoral Area H – Cultus Lake Park, to vary the height regulation from maximum two (2) stories plus basement or crawlspace and roof to maximum two (2) stories plus basement, parking level garage and roof, to facilitate the construction of a single family dwelling, subject to consideration of any comments or concerns raised by the public.

CARRIED

8.4 Application for Development Variance Permit 2018-31 to vary the requirements of a proposed Accessory Family Residential Use for the property at 41360 Bovington Road, Electoral Area "G"

Moved By STOBART
Seconded By NIEMI

THAT the Fraser Valley Regional District Board issue Development Permit 2018-31 to vary the definition of Accessory Residential Family Use to allow for a double-width manufactured home and to permit a broader range of immediate family members to occupy the Accessory Family Residential Use at 41360 Bovington Road, Electoral Area G, subject to consideration of comments from the public.

AND THAT the Fraser Valley Regional District Board authorize its signatories to execute all legal instruments associated with this application.

CARRIED

8.5 Telus Communications Tower Proposal for 59600 Lougheed Hwy, Electoral Area "B"

Moved By ADAMSON
Seconded By NIEMI

THAT the Fraser Valley Regional District Board respond to the referral from Telus Communications for the installation of a new communications tower at 59600 Lougheed Highway, Electoral Area "B" with the following comments:

1. The scope of proposed public consultation is satisfactory to the Fraser Valley Regional District, provided consultation with Skawahlook First Nation is undertaken. Telus Communications will provide documentation confirming the consultation is complete.
2. Telus Communications will obtain non-farm use approval from the Agricultural Land Commission.
3. Telus Communications will obtain a building permit prior to construction.
4. Telus Communications will provide information to FVRD on the potential for other telecommunication companies to co-locate on the proposed tower.

CARRIED

9. ELECTORAL AREA EMERGENCY SERVICES

No Items.

10. ADDENDA ITEMS/LATE ITEMS

No Items.

11. REPORTS BY STAFF

None

12. REPORTS BY ELECTORAL AREA DIRECTORS

Director Niemi reported that things are going well in his area and thanked staff.

Director Dixon reported that the roundabout at the bottom of Cultus Lake Hill and Yarrow is being used and already making a difference to the traffic and looking forward to this project being completed. She also thanked staff for their fast response in making arrangements to move the homeless camp out of Area H. Work is being done on the development at Aquadel and there are some concerns expressed from the neighbours.

Director Adamson reported that Yale Ratepayers will be hosting an Octoberfest event on October 21st.

Director Stobbart reported that the Deroche Elementary School playground and track are nearing completion and that the tennis court refurbishment near the community hall should be paved and thanked volunteers for giving a hand with these projects and that the local community donated generously to have these projects completed.

Director Boucher thanked staff for their ongoing work.

Director Raymond thanked staff for their ongoing work.

Director Dickey reported that the Residents Association is interested in the discussion on the Cheam Gondola project. He wished everyone the best of luck in the October elections and also thanked Director Niemi for his contribution.

13. PUBLIC QUESTION PERIOD FOR ITEMS RELEVANT TO AGENDA

None

17. ADJOURNMENT

Moved By BOUCHER

Seconded By DIXON

THAT the Electoral Area Services Committee Open Meeting of October 11, 2018 be adjourned.

CARRIED

The Electoral Area Services Committee Open Meeting adjourned at 1:40 p.m.

MINUTES CERTIFIED CORRECT:

.....
Director Bill Dickey, Chair

To: CAO for the Electoral Area Services Committee
From: Jaime Reilly, Manager of Corporate Administration

Date: 2018-12-11
File No: 3920-20-2019

Subject: Electoral Area Director Attendance at the 2019 LGLA Elected Officials Seminar

RECOMMENDATION

THAT the Fraser Valley Regional District Board authorize Electoral Area Directors to attend the 2019 Local Government Leadership Academy Elected Officials Seminar to be held in Richmond, BC between January 16 and 18, 2019;

AND THAT registration fees, accommodation and travel costs be approved from Budget 102, Electoral Area Administration.

BACKGROUND

In 2018, Electoral Area Directors attended the Local Government Leadership Academy (LGLA) Leadership Forum as well as the UBCM Electoral Area Directors Forum in Richmond, BC.

Given that the LGLA is organizing an Elected Officials Seminar specific to Electoral Area Representatives, UBCM will not be organizing an Electoral Area Directors Forum in 2019.

This three day seminar is open to newly elected and returning elected officials.

DISCUSSION

LGLA is organizing a number of seminars for Elected Officials throughout the province during January and February 2019. The seminar for Electoral Area Representatives takes place between January 16 and 18, 2019 and includes topics created specifically for newly elected and returning elected officials.

A Program at a Glance has been released for the LGLA Elected Official Seminar (copy attached) which includes topics such as "Newly elected: Local Government Planning 101" and "Returning elected session: asset management".

COST

The registration fee is \$350, plus taxes per person. The cost of the hotel room is \$145, plus tax, per person, per night. As the seminar is held in Richmond, the only travel costs will be mileage.

CONCLUSION

As the LGLA Elected Officials Seminar is held locally and usually well-attended, staff are bringing forward this for the Board's consideration so that registration and hotel accommodations can be arranged as soon as possible.

COMMENTS BY:

Mike Veenbaas, Director of Financial Services

Reviewed and supported. Funds are budgeted in Electoral Area Administration to cover attendance at this seminar.

Paul Gipps, Chief Administrative Officer

Reviewed and supported



2019 ELECTED OFFICIALS SEMINAR
Electoral Area Representatives
Radisson Hotel Vancouver Airport • Richmond
January 16 to 18

PROGRAM-AT-A-GLANCE

Wednesday, January 16, 2019		
5:30-6:30 pm		Registration
6:30-6:45 pm	Plenary	Opening and Welcome
6:45-8:00 pm	Plenary	Keynote – Greg Moore
8:00-9:00 pm	Plenary	Ask the Local Government Experts A panel of experienced elected officials field local government trivia questions from our celebrity game show host. Audience participation encouraged!
Thursday, January 17, 2019		
7:00-8:30 am		Breakfast
7:30-8:30 am	Plenary	EA Partners Clinic: UBCM, LGMA, MAH <i>Learn about the key local government organizations supporting your community.</i>
8:30 - 10:00 am	Breakout	Newly Elected: Local Government Finance 101
	Breakout	Newly Elected: Local Government Financial Management 1
8:30 - 10:00 am		Dynamics and Decision Making – Tracey Lorensen <i>Effective decision making in the council/board context. Maintaining role clarity, dealing with difficult people and situations, and working as a team in the interest of the community.</i>
10:00-10:30 am		Refreshment Break
10:30 am -12:00 pm	Plenary	We've Got to Stop Meeting Like This <i>Discussion on practical tools to make your meetings orderly, focused, efficient, and inclusive, while seeking to produce quality outcomes that earn public trust and confidence.</i>
12:00-1:00 pm		Lunch - Minister of Municipal Affairs and Housing
1:00-2:00 pm	Breakout	Newly Elected: Local Government Law 101 - Rights, Risks & Responsibilities <i>Local law firms will cover CC & LGA, and focus on rights of elected officials and how they can work within legislation to serve their constituents and get things accomplished.</i>
	Breakout	Returning Elected: Topical Legal Issue(s) <i>Local law firms presenting on current day legal issues with possible topics including cannabis legalization and regulations, short term rentals, or other topics. To demonstrate examples of communities that have taken different approaches and current status.</i>
2:00-3:00 pm	Plenary	Public Hearings 101 <i>To cover procedures and protocols at public hearings; how to tactfully & respectfully handle typical and atypical situations. A lawyer will facilitate a panel of experienced elected/staff. Various scenarios presented; audience input encouraged.</i>
3:00-3:30 pm		Refreshment Break

3:30-4:30 pm	Breakout	Newly Elected: Municipalities & RDs - An Overview of a Unique BC System <i>Learn about BC's unique regional district system - how it works, what it does, and how municipalities and regional districts can be an effective team within a region.</i>
	Breakout	Returning Elected: Working Together to Manage Emergencies - EMBC regional training personnel <i>This session will provide you with an orientation to your responsibilities during the planning and declaration of a local emergency, and what you can leave to trained operational personnel.</i>
4:30-5:30 pm	Plenary	Local Governments & Indigenous Communities Working Together <i>This session will bring together local government and indigenous community leaders to discuss regional efforts to work together for mutual benefit.</i>
5:30-7:00 pm		DINNER ON OWN
7:00-8:00 pm	Plenary	Post-election Assessment – Results, Turnout & Trends – Todd Pugh, CivicInfo BC <i>Hear the stories behind the local government election results.</i>

Friday, January 18, 2019		
7:00-8:30 am		Breakfast
7:30-8:30 am	Plenary	EA Partners Clinic: MFABC, MIABC, BC Assessment
8:30-10:00 am	Breakout	Newly Elected Session: Local Government Finance 101 <i>Your budget communicates your council or board priorities. Get to know the basics of local government finance - everything you want to ask, need to know, and more...</i>
	Breakout	Returning Elected Session: Asset Management – Christina Benty <i>Go beyond the basics of local government finance and learn about asset management - why it's important and how it's done.</i>
10:00-10:30 am		Refreshment Break
10:30 am-12:00 pm	Breakout	Newly Elected Session: Local Government Planning 101 <i>Learn why and how we plan, statutory requirements, council/board, staff and public roles and responsibilities.</i>
	Breakout	Returning Elected Session: Sustainable Community Planning <i>Learn how to introduce and implement strategies for sustainability into your community planning efforts.</i>
12:00-1:00 pm		Lunch - Sponsor Remarks
1:00-2:15 pm	Plenary	Media Relations – Peak Communicators <i>Communication experts cover everything from key dos and don'ts when being interviewed for the local paper, how to conduct yourself effectively and safely online.</i>
2:15 pm	Plenary	Closing Comments and Adjourn

Draft October 22, 2018 SUBJECT TO CHANGE

To: CAO for the Electoral Area Services Committee
From: Jaime Reilly, Manager of Corporate Administration

Date: 2018-12-11
File No: 0530-01-01

Subject: 2019 FVRD Board and Committee Meeting Schedule

RECOMMENDATION

THAT the Fraser Valley Regional District Board consider approval of the draft 2019 Board and Committee Schedule.

STRATEGIC AREA(S) OF FOCUS

Provide Responsive & Effective Public Services

BACKGROUND

At the December Board meeting each year, a proposed Board and Committee Schedule is provided to the Board for consideration.

DISCUSSION

As provided in Fraser Valley Regional District Board and Committee Procedures Bylaw No. 1305, 2015, the meetings of the Regional and Corporate Services Committee and the Electoral Area Services Committee are to be scheduled for the second Tuesday of each month. Additionally, the procedures bylaw also provides that Board meetings be scheduled for the fourth Tuesday of each month.

In drafting the yearly meeting schedule, staff review the council meeting schedules for all six Member Municipalities to avoid any conflicts. Additionally, the dates for all the upcoming conferences, such as Federation of Canadian Municipalities, and Union of British Columbia Municipalities, are reviewed to ensure that there are no conflicts with proposed meeting dates.

The Recreation, Culture & Airpark Services Commission has set their schedule for 2019, and these meeting dates have been included in the 2019 FVRD Board and Committee Meeting Schedule.

Due to a number of conflicts with council meeting schedules and statutory holidays, the proposed schedule includes dates for meetings on a Wednesday or Thursday.

COST

None.

CONCLUSION

Following review of all Municipal Council meeting schedules, as well as 2019 conferences, the attached draft 2019 FVRD Board and Committee Schedule is being brought forward for the Board's consideration.

COMMENTS BY:

Mike Veenbaas, Director of Financial Services

No further financial comments.

Paul Gipps, Chief Administrative Officer

Reviewed and supported

2019 FVRD Board & Committee Meeting Schedule

JANUARY 8th Recreation, Culture & Airpark Services Commission – 6:30 pm, TUE 9th Regional and Corporate Services Committee – 9 am, WED 10th Electoral Area Services Committee – 1:30 pm, WED 22nd Recreation, Culture & Airpark Services Commission – 6:30 pm, TUE 23rd Board/Hospital Board – 7 pm, WED	FEBRUARY 12th Regional and Corporate Services Committee – 9 am, TUE 13th Electoral Area Services Committee – 1:30 pm, TUE 26th Board/Hospital Board – 7 pm, TUE	MARCH 5th Recreation, Culture & Airpark Services Commission – 6:30 pm, TUE 12th Regional and Corporate Services Committee – 9 am, TUE 13th Electoral Area Services Committee – 1:30 pm, TUE 20th Board/Hospital Board – 7 pm, WED	APRIL 9th Regional and Corporate Services Committee – 9 am, TUE 10th Electoral Area Services Committee – 1:30 pm, TUE 16th Recreation, Culture & Airpark Services Commission – 6:30 pm, TUE 25th Board/Hospital Board – 7 pm, THU
MAY 8th Regional and Corporate Services Committee – 9 am, WED 9th Electoral Area Services Committee – 1:30 pm, WED 22nd Board/Hospital Board – 7 pm, WED 29th Recreation, Culture & Airpark Services Commission – 6:30 pm, WED	JUNE 11th Regional and Corporate Services Committee – 9 am, TUE 12th Electoral Area Services Committee – 1:30 pm, TUE 25th Board/Hospital Board – 7 pm, TUE	JULY 9th Regional and Corporate Services Committee – 9 am, TUE 10th Electoral Area Services Committee – 1:30 pm, TUE 16th Recreation, Culture & Airpark Services Commission – 6:30 pm, TUE 23rd Board/Hospital Board – 7 pm, TUE	AUGUST 13th Regional and Corporate Services Committee – 9 am, TUE 14th Electoral Area Services Committee – 1:30 pm, TUE 27th Board/Hospital Board – 7 pm, TUE At the Call of the Chair
SEPTEMBER 10th Regional and Corporate Services Committee – 9 am, TUE 11th Electoral Area Services Committee – 1:30 pm, TUE 17th Recreation, Culture & Airpark Services Commission – 6:30 pm, TUE 18th Board/Hospital Board – 7 pm, WED	OCTOBER 8th Regional and Corporate Services Committee – 9 am, TUE 9th Electoral Area Services Committee – 1:30 pm, TUE 22nd Board/Hospital Board – 7 pm, TUE 29th Recreation, Culture & Airpark Services Commission – 6:30 pm, TUE	NOVEMBER 14th Regional and Corporate Services Committee – 9 am, THU 15th Electoral Area Services Committee – 1:30 pm, THU 26th Board/Hospital Board – 7 pm, TUE	DECEMBER 3rd Recreation, Culture & Airpark Services Commission – 6:30 pm, TUE 10th Regional and Corporate Services Committee – 9 am, TUE 11th Electoral Area Services Committee – 1:30 pm, TUE 18th Board/Hospital Board – 7 pm, WED

Fraser Valley Aboriginal Relations Committee – At the Call of the Chair

Meeting dates and times are subject to change. Please check www.fvrd.ca for the most up to date meeting schedule.

REPORT

To: CAO for the Electoral Area Services Committee

Date: 2018-11-28

From: Katarina Duke, Engineering & Community Services Technologist
3920-20

File No:

**Subject: Fraser Valley Regional District Hatzic East Water System Loan Authorization
Bylaw No. 1505, 2019 – Electoral Area G**

RECOMMENDATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Hatzic East Water System Loan Authorization Bylaw No. 1505, 2019*;

STRATEGIC AREA(S) OF FOCUS

Support Healthy & Sustainable Community
Provide Responsive & Effective Public
Services

BACKGROUND

Recently the FVRD submitted an application for grant funding under the Investing in Canada Infrastructure-Environmental Quality (ICIP) program for the proposed Hatzic East Water System in Electoral Area G. The purpose of the project is to extend the watermain to provide potable water and fire protection to 91 properties and an additional 38 water services on Sylvester Road. The grant program is structured such that 73% of the project costs are covered by the grant funding while the remaining 27% must be provided by the Local Government.

The bylaw discussed in this report as as *Fraser Valley Regional District Hatzic East Water System Loan Authorization Bylaw No. 1505, 2019* (the Bylaw) is required for the watermain extension on Sylvester Road to proceed.

DISCUSSION

The project will consist of the installation of 4.3 km of water main along the Sylvester Road corridor including 2 creek crossings, booster pump, 16 fire hydrants, 38 water services, water meters, PRV units and connection to the FVRD's SCADA system.

The FVRD has completed an estimate for the project. The costs of the project have been estimated to be \$3,229,650.

The FVRD has submitted an application for \$2,357,644 in funding from the Investing in Canada Infrastructure-Environmental Quality (ICIP) program specifically for this project. There is no funding available to help augment the grant funds for the extension, thus there is an outstanding local share balance of \$872,006 that must be borrowed to complete the project.

The Provincial grant administrators have informed the FVRD that in order for this grant application to be deemed complete the FVRD must demonstrate that it possesses the required local share of the project cost or has a loan authorization bylaw for the local share at third reading. Should the Board give as *Fraser Valley Regional District Hatzic East Water System Loan Authorization Bylaw No. 1505, 2019* first, second and third reading it will then be forwarded to the Province and the grant application will be complete.

Should the grant funding be awarded the next steps will be to conduct public information meetings to present the project to the affected property owners and then to proceed with a petition process. If the petition process is successful the bylaw would then be brought back to the Board for final adoption.

If grant funding is not awarded or if the petition process does not pass first, second and third reading of the bylaw can be rescinded and the bylaw withdrawn.

COST

The total cost of the project is not expected to exceed \$3,229,650. Under the Investing in Canada Infrastructure-Environmental Quality (ICIP) program, if awarded, \$2,357,644 will be paid for with grant funding. The outstanding balance of \$872,006 will be funded through financing from the Municipal Finance Authority of BC by the residents the extension will benefit. No costs will be incurred if the grant application is unsuccessful or if the affected property owners do not petition in favor of the project.

COMMENTS BY:

Sterling Chan, Manager of Engineering and Infrastructure Reviewed and
Supported.

Tareq Islam, Director of Engineering & Community Services Reviewed and Supported.

Mike Veenbaas, Director of Financial Services Reviewed and Supported.

Paul Gipps, Chief Administrative Officer Reviewed and Supported.

FRASER VALLEY REGIONAL DISTRICT

BYLAW NO. 1505, 2019

A Bylaw to authorize the borrowing for costs of constructing the water system for the Hatzic East Water System Service Area

WHEREAS the Fraser Valley Regional District Board of Directors ("the Board") deems it necessary to construct a water supply and distribution system ("the Works") to serve the Service Area established by *Fraser Valley Regional District Hatzic East Water System Service Area Establishment Bylaw No. 1504, 2019*;

AND WHEREAS the estimated cost of constructing the Works, including expenses incidental thereto, is the sum of THREE MILLION AND THREE HUNDRED THOUSAND DOLLARS (\$3,300,000.00), of which the sum of NINE HUNDRED AND TWENTY FIVE THOUSAND DOLLARS (\$925,000.00) is the amount of debt intended to be borrowed by this bylaw;

AND WHEREAS the maximum term for which a debenture may be issued to secure the debt created by this bylaw is for a term not to exceed 20 years;

AND WHEREAS the authority to borrow under this bylaw expires five years from the date on which this bylaw is adopted;

AND WHEREAS the Board has received participating area approval through the electoral area services petition process;

THEREFORE the Board enacts as follows:

1) CITATION

This bylaw may be cited as *Fraser Valley Regional District Hatzic East Water System Loan Authorization Bylaw No. 1505, 2019*.

2) ENACTMENTS

- a) The Board is hereby empowered and authorized to undertake and carry out the construction of a water supply and distribution system ("the Works") to serve the Hatzic East Water System Service Area within a portion of Electoral Area G. Said construction is to be carried out generally in accordance with plans on file in the Fraser Valley Regional District office, and to do all things necessary in connection therewith and without limiting the generality of the foregoing:

- i. To borrow upon the credit of the Fraser Valley Regional District a sum not exceeding NINE HUNDRED AND TWENTY FIVE THOUSAND DOLLARS (\$925,000.00); and
 - ii. To acquire all such real such real property, easements, rights-of-way, licenses, rights or authorities as may be requisite or desirable for, or in connection with, the construction of the Works.
- b) The maximum term for which debentures may be issued to secure the debt created by this bylaw is 20 years.

3) **SEVERABILITY**

If a portion of this bylaw is found invalid by a court, it will be severed and the remainder of the bylaw will remain in effect.

4) **READINGS AND ADOPTION**

READ A FIRST TIME this _____ day of _____

READ A SECOND TIME this _____ day of _____

READ A THIRD TIME this _____ day of _____

CERTIFICATION AS TO SUFFICIENCY
AND VALIDITY OF PETITIONS this _____ day of _____

APPROVED BY THE INSPECTOR
OF MUNICIPALITIES this _____ day of _____

ADOPTED THIS _____ day of _____

Chair/Vice-Chair

Corporate Officer/Deputy

5) **CERTIFICATION**

I hereby certify that this is a true and correct copy of *Fraser Valley Regional District East Hatzic Water System Loan Authorization Bylaw No. 1505, 2019* as read a third time by the Board of Directors of the Fraser Valley Regional District on the

Dated at Chilliwack, B.C. this

Corporate Officer/Deputy

To: CAO for the Electoral Area Services Committee

Date: 2018-11-28

From: Katarina Duke, Engineering & Community Services Technologist

File No: 3920-20

Subject: Fraser Valley Regional District Canyon Alpine Water System Loan Authorization Bylaw No. 1507, 2019

RECOMMENDATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Canyon Alpine Water System Loan Authorization Bylaw No. 1507, 2019*.

STRATEGIC AREA(S) OF FOCUS

Support Healthy & Sustainable Community

Provide Responsive & Effective Public Services

BACKGROUND

Recently the FVRD applied for grant funding under the Investing in Canada Infrastructure-Environmental Quality (ICIP) program for an upgrade of the Canyon Alpine Water System in Electoral Area A. The purpose of the project is to extend the watermain to provide potable water and fire protection to 15 properties in the community of Canyon Alpine. The grant program is structured such that 73% of the project costs are covered by the grant funding while the remaining 27% must be provided by the Local Government.

The bylaw discussed in this report as *Fraser Valley Regional District Canyon Alpine Water System Loan Authorization Bylaw No. 1507, 2019* (the Bylaw) is required for the project to proceed.

DISCUSSION

The project will include the engineering, design, and construction of a new reservoir, control systems and SCADA system to connect with the existing FVRD SCADA network; installation of 1,400 meters of 200mm diameter water main, 2 bulk meters and services, 6 fire hydrant assemblies and 28 water services including water meters.

The FVRD has completed an estimate for the project. The costs of the project have been estimated to be \$1,620,000.

The FVRD has applied for \$1,187,946 in funding from the Investing in Canada Infrastructure-Environmental Quality (ICIP) program specifically for this project. There is no funding available to help augment the grant funds for the extension, thus there is an outstanding balance of \$432,054 that must be borrowed to complete the project.

The Provincial grant administrators have informed the FVRD that in order for this grant application to be deemed complete the FVRD must demonstrate that it possesses the required local share of the project cost or has a loan authorization bylaw for the local share at third reading. Should the Board give *Fraser Valley Regional District Canyon Alpine Water System Loan Authorization Bylaw No. 1507, 2019* first, second and third reading it will then be forwarded to the Province and the grant application will be complete.

Should the grant funding be awarded the next steps will be to conduct public information meetings to present the project to the affected property owners and then to proceed with a petition process. If the petition process is successful the bylaw would then be brought back to the Board for final adoption.

If grant funding is not awarded or if the petition process does not pass first, second and third reading of the bylaw can be rescinded and the bylaw withdrawn.

COST

The total cost of the project is not expected to exceed \$1,620,000. Under the Investing in Canada Infrastructure-Environmental Quality (ICIP) program, if awarded, \$1,187,946 will be paid for with grant funding. The outstanding balance of \$432,054 will be funded through financing from the Municipal Finance Authority of BC by the residents the extension will benefit. No costs will be incurred if the grant application is unsuccessful or if the affected property owners do not petition in favor of the project.

COMMENTS BY:

Sterling Chan, Manager of Engineering & Infrastructure

Reviewed and supported.

Tareq Islam, Director of Engineering & Community Services

Reviewed and Supported.

Mike Veenbaas, Director of Financial Services

Reviewed and Supported.

Paul Gipps, Chief Administrative Officer

Reviewed and supported

FRASER VALLEY REGIONAL DISTRICT

BYLAW No. 1507, 2019

A bylaw to authorize the borrowing for capital costs associated with the construction of the water system for the Canyon Alpine Water System Service Area

WHEREAS the Fraser Valley Regional District Board of Directors ("the Board") deems it necessary to construct a water supply and distribution system ("the Works") to serve the Service Area established by *Fraser Valley Regional District Canyon Alpine Water System Service Area Establishment Bylaw No. 1506, 2019*;

AND WHEREAS the estimated cost of constructing the Works, including expenses incidental thereto, is the sum of ONE MILLION AND SIX HUNDRED AND TWENTY THOUSAND DOLLARS (\$1,620,000.00), of which the sum of FOUR HUNDRED AND EIGHTY THOUSAND DOLLARS (\$480,000.00), is the amount of debt intended to be borrowed by this bylaw;

AND WHEREAS the maximum term for which a debenture may be issued to secure the debt created by this bylaw is for a term not to exceed 20 years;

AND WHEREAS the authority to borrow under this bylaw expires five years from the date on which this bylaw is adopted;

AND WHEREAS the Board has received participating area approval through the electoral area services petition process;

THEREFORE the Board enacts as follows:

1) CITATION

This bylaw may be cited as *Fraser Valley Regional District Canyon Alpine Water System Loan Authorization Bylaw No. 1507, 2019*.

2) ENACTMENTS

- a) The Board is hereby empowered and authorized to undertake and carry out or cause to be undertaken and carried out the construction of a water supply and distribution system ("the Works") to serve the Canyon Alpine Water System Service Area within a portion of Electoral Area A. Said work is to be carried out generally in accordance with plans on file in the Fraser Valley Regional District office, and to do all things necessary in connection therewith and without limiting the generality of the foregoing:
 - i. To borrow upon the credit of the Fraser Valley Regional District a sum not exceeding FOUR HUNDRED AND EIGHTY THOUSAND DOLLARS (\$480,000.00); and
 - ii. To acquire all such real such real property, easements, rights-of-way, licenses, rights or

authorities as may be requisite or desirable for, or in connection with, the construction of the Works.

- b) The maximum term for which debentures may be issued to secure the debt created by this bylaw is 20 years.

3) **SEVERABILITY**

If a portion of this bylaw is found invalid by a court, it will be severed and the remainder of the bylaw will remain in effect.

4) **READINGS AND ADOPTION**

CERTIFICATION AS TO SUFFICIENCY
AND VALIDITY OF PETITIONS this

day of

READ A FIRST TIME this

day of

READ A SECOND TIME this

day of

READ A THIRD TIME this

day of

APPROVED BY THE INSPECTOR
OF MUNICIPALITIES this

day of

ADOPTED THIS

day of

Chair/Vice-Chair

Corporate Officer/Deputy

5) **CERTIFICATION**

I hereby certify that this is a true and correct copy of *Fraser Valley Regional District Canyon Alpine Water System Loan Authorization Bylaw No. 1507, 2019* as read a third time by the Fraser Valley Regional District Board of Directors on the

Dated at Chilliwack, B.C. this

Corporate Officer/Deputy

To: CAO for the Electoral Area Services Committee

Date: 2018-11-28

From: Katarina Duke, Engineering & Community Services Technologist

File No: 3920-20

Subject: Fraser Valley Regional District Dogwood Water System Capital Construction Loan Authorization Bylaw No. 1509, 2019

RECOMMENDATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Dogwood Water System Capital Construction Loan Authorization Bylaw No. 1509, 2019*.

STRATEGIC AREA(S) OF FOCUS

Provide Responsive & Effective Public Services

Support Healthy & Sustainable Community

BACKGROUND

Recently the FVRD submitted an application for grant funding under the Investing in Canada Infrastructure-Environmental Quality (ICIP) program for an extension of the Dogwood Valley Water System in the FVRD's Electoral Area B. The purpose of the project is to extend the watermain to provide potable water and fire protection to an additional 15 property owners on Parklane Drive and Mountain Valley Way. The grant program is structured such that 73% of the project costs are covered by the grant funding while the remaining 27% must be provided by the Local Government.

The bylaw discussed in this report *Fraser Valley Regional District Dogwood Water System Capital Construction Loan Authorization Bylaw No. 1509, 2019* (the Bylaw) is required for the watermain extension on Parklane Drive and Mountain Valley Way to proceed.

DISCUSSION

The project consists of the installation of 1300m of 200mm diameter watermain which will cross under the Canadian Pacific (CP) Railway tracks and connect to the existing system; installation of 9 fire hydrants; and 15 service connections including water meters.

The FVRD has completed an estimate for the project. The costs of the project have been estimated to be \$813,000.

The FVRD has submitted an application for \$596,172 in funding from the Investing in Canada Infrastructure-Environmental Quality (ICIP) program specifically for this project. There is no funding available to help augment the grant funds for the extension, thus there is an outstanding balance of \$219,510 that must be borrowed to complete the project.

The Provincial grant administrators have informed the FVRD that in order for this grant application to be deemed complete the FVRD must demonstrate that it possesses the required local share of the project cost or has a loan authorization bylaw for the local share at third reading. Should the Board give *Fraser Valley Regional District Dogwood Water System Capital Construction Loan Authorization Bylaw No. 1509, 2019* first, second and third reading it will then be forwarded to the Province and the grant application will be complete.

Should the grant funding be awarded the next steps will be to conduct public information meetings to present the project to the affected property owners and then to proceed with a petition process. If the petition process is successful the bylaw would then be brought back to the Board for final adoption.

If grant funding is not awarded or if the petition process does not pass first, second and third reading of the bylaw can be rescinded and the bylaw withdrawn.

COST

The total cost of the project is not expected to exceed \$813,000. Under the Investing in Canada Infrastructure-Environmental Quality (ICIP) program, if awarded, \$596,172 will be paid for with grant funding. The outstanding balance of \$219,510 will be funded through financing from the Municipal Finance Authority of BC by the residents the extension will benefit. No costs will be incurred if the grant application is unsuccessful or if the affected property owners do not petition in favor of the project.

COMMENTS BY:

Sterling Chan, Manager of Engineering and Infrastructure	Reviewed and Supported.
Tareq Islam, Director of Engineering & Community Services	Reviewed and Supported.
Mike Veenbaas, Director of Financial Services	Reviewed and Supported.
Paul Gipps, Chief Administrative Officer	Reviewed and supported.

FRASER VALLEY REGIONAL DISTRICT

BYLAW No. 1509, 2019

A bylaw to authorize the borrowing for capital costs associated with the extension of the Dogwood Water System Service Area

WHEREAS the Fraser Valley Regional District Board of Directors ("the Board") deems it necessary to extend the boundaries of the Service Area established by *Fraser Valley Regional District Dogwood Water System Local Service Area Establishment Bylaw No. 0143, 1997*;

AND WHEREAS the Board has established the Dogwood Water System Capital Construction Service Area by adoption of Bylaw No, 1509, 2019 for the purpose of constructing infrastructure ("the Works") to serve the extended portion of the service area;

AND WHEREAS the estimated cost of constructing the Works, including expenses incidental thereto, is the sum of EIGHT HUNDRED AND THIRTEEN THOUSAND DOLLARS (\$813,000.00), of which the sum of TWO HUNDRED AND FIFTY THOUSAND DOLLARS (\$250,000.00), is the amount of debt intended to be borrowed by this bylaw

AND WHEREAS the maximum term for which a debenture may be issued to secure the debt created by this bylaw is for a term not to exceed 20 years;

AND WHEREAS the authority to borrow under this bylaw expires five years from the date on which this bylaw is adopted;

AND WHEREAS the Board has received participating area approval through the electoral area services petition process;

THEREFORE the Board enacts as follows:

1) CITATION

This bylaw may be cited as *Fraser Valley Regional District Dogwood Water System Capital Construction Loan Authorization Bylaw No. 1509, 2019*.

2) ENACTMENTS

- a) The Board is hereby empowered and authorized to undertake and carry out or cause to be undertaken and carried out the construction of infrastructure ("the Works") to serve the Dogwood Water System Capital Construction Service Area within a portion of Electoral Area B. Said work is to be carried out generally in accordance with plans on file in the Fraser Valley Regional District office, and to do all things necessary in connection therewith and without limiting the generality of the foregoing:
 - i. To borrow upon the credit of the Fraser Valley Regional District a sum not exceeding TWO HUNDRED AND FIFTY THOUSAND DOLLARS (\$250,000.00); and

- ii. To acquire all such real such real property, easements, rights-of-way, licenses, rights or authorities as may be requisite or desirable for, or in connection with, the construction of the Works.
- b) The maximum term for which debentures may be issued to secure the debt created by this bylaw is 20 years.

3) **SEVERABILITY**

If a portion of this bylaw is found invalid by a court, it will be severed and the remainder of the bylaw will remain in effect.

4) **READINGS AND ADOPTION**

READ A FIRST TIME this

day of

READ A SECOND TIME this

day of

READ A THIRD TIME this

day of

CERTIFICATION AS TO SUFFICIENCY
AND VALIDITY OF PETITIONS this

day of

APPROVED BY THE INSPECTOR
OF MUNICIPALITIES this

day of

ADOPTED THIS

day of

Chair/Vice-Chair

Corporate Officer/Deputy

5) **CERTIFICATION**

I hereby certify that this is a true and correct copy of *Fraser Valley Regional District Dogwood Water System Capital Construction Loan Authorization Bylaw No. 1509, 2019* as read a third time by the Fraser Valley Regional District Board of Directors on the day of

Dated at Chilliwack, B.C. this day of

Corporate Officer/Deputy

To: CAO for the Electoral Area Services Committee

Date: 2018-11-28

From: Katarina Duke, Engineering & Community Services Technologist

File No: 3920-20

Subject: Fraser Valley Regional District Electoral Area D Water System Capital Construction Loan Authorization Bylaw No. 1511, 2019

RECOMMENDATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Electoral Area D Water System Capital Construction Loan Authorization Bylaw No. 1511, 2019*;

STRATEGIC AREA(S) OF FOCUS

Support Healthy & Sustainable Community

Provide Responsive & Effective Public Services

BACKGROUND

Recently the FVRD submitted an application for grant funding under the Investing in Canada Infrastructure-Environmental Quality (ICIP) program for an extension of the Area D Integrated Water System. The purpose of the project is to extend the watermain to provide potable water and fire protection to an additional 22 property owners on McGregor Road. The grant program is structured such that 73% of the project costs are covered by the grant funding while the remaining 27% must be provided by the Local Government.

The bylaw discussed in this report as *Fraser Valley Regional District Electoral Area D Water System Capital Construction Loan Authorization Bylaw No. 1511, 2019* (the Bylaw) is required for the watermain extension on McGregor Road to proceed.

DISCUSSION

The project includes the design, engineering and construction of 1350m of 200mm diameter watermain; horizontal directional drill under Bridal Creek, installation of 9 fire hydrants; and 22 service connections including water meters.

The FVRD has completed an estimate for the project. The costs of the project have been estimated to be \$806,000.

The FVRD has submitted an application for \$588,380 in funding from the Investing in Canada Infrastructure-Environmental Quality (ICIP) program specifically for this project. There is no funding available to help augment the grant funds for the extension, thus there is an outstanding balance of \$217,620 that must be borrowed to complete the project.

The Provincial grant administrators have informed the FVRD that in order for this grant application to be deemed complete the FVRD must demonstrate that it possesses the required local share of the project cost or has a loan authorization bylaw for the local share at third reading. Should the Board give *Fraser Valley Regional District Electoral Area D Water System Capital Construction Loan Authorization Bylaw No. 1511, 2019* first, second and third reading it will then be forwarded to the Province and the grant application will be complete.

Should the grant funding be awarded the next steps will be to conduct public information meetings to present the project to the affected property owners and then to proceed with a petition process. If the petition process is successful the bylaw would then be brought back to the Board for final adoption.

If grant funding is not awarded or if the petition process does not pass first, second and third reading of the bylaw can be rescinded and the bylaw withdrawn.

COST

The total cost of the project is not expected to exceed \$806,000. Under the Investing in Canada Infrastructure-Environmental Quality (ICIP) program, if awarded, \$588,380 will be paid for with grant funding. The outstanding balance of \$217,620 will be funded through financing from the Municipal Finance Authority of BC by the residents the extension will benefit. No costs will be incurred if the grant application is unsuccessful or if the affected property owners do not petition in favor of the project.

COMMENTS BY:

Sterling Chan, Manager of Engineering and Infrastructure Reviewed and Supported.

Tareq Islam, Director of Engineering & Community Services Reviewed and Supported.

Mike Veenbaas, Director of Financial Services Reviewed and Supported.

Paul Gipps, Chief Administrative Officer Reviewed and Supported

FRASER VALLEY REGIONAL DISTRICT

BYLAW No. 1511, 2019

A bylaw to authorize the borrowing for capital costs associated with the extension of the Electoral Area D Integrated Water System Service Area

WHEREAS the Fraser Valley Regional District Board of Directors ("the Board") deems it necessary to extend the boundaries of the Service Area established by *Fraser Valley Regional District Electoral Area D Integrated Water System Service Area Merger Bylaw No. 0861, 2011*;

AND WHEREAS the Board has established the Electoral Area D Water System Capital Construction Service Area by adoption of Bylaw No. 1510, 2019 for the purpose of constructing infrastructure ("the Works") to serve the extended portion of the service area;

AND WHEREAS the estimated cost of constructing the Works, including expenses incidental thereto, is the sum of EIGHT HUNDRED AND SIX THOUSAND DOLLARS (\$806,000.00), of which the sum of TWO HUNDRED AND FORTY THOUSAND DOLLARS \$240,000 is the amount of debt intended to be borrowed by this bylaw;

AND WHEREAS the maximum term for which a debenture may be issued to secure the debt created by this bylaw is for a term not to exceed 20 years;

AND WHEREAS the authority to borrow under this bylaw expires five years from the date on which this bylaw is adopted;

AND WHEREAS the Board has received participating area approval through the electoral area services petition process;

THEREFORE the Board enacts as follows:

1) CITATION

This bylaw may be cited as *Fraser Valley Regional District Electoral Area D Water System Capital Construction Loan Authorization Bylaw No. 1511, 2019*.

2) ENACTMENTS

- a) The Board is hereby empowered and authorized to undertake and carry out or cause to be undertaken and carried out the construction of infrastructure ("the Works") to serve the Electoral Area D Water System Capital Construction Service Area within a portion of Electoral Area D. Said work is to be carried out generally in accordance with plans on file in the Fraser Valley Regional District office, and to do all things necessary in connection therewith and without limiting the generality of the foregoing:
 - i. To borrow upon the credit of the Fraser Valley Regional District a sum not exceeding TWO HUNDRED AND FORTY THOUSAND DOLLARS \$240,000; and

- ii. To acquire all such real such real property, easements, rights-of-way, licenses, rights or authorities as may be requisite or desirable for, or in connection with, the construction of the Works.
- b) The maximum term for which debentures may be issued to secure the debt created by this bylaw is 20 years.


3) SEVERABILITY

If a portion of this bylaw is found invalid by a court, it will be severed and the remainder of the bylaw will remain in effect.

4) READINGS AND ADOPTION

READ A FIRST TIME this day of

READ A SECOND TIME this day of

READ A THIRD TIME this  day of

CERTIFICATION AS TO SUFFICIENCY
AND VALIDITY OF PETITIONS this day of

APPROVED BY THE INSPECTOR
OF MUNICIPALITIES this _____ day of _____

ADOPTED THIS _____ day of _____

Chair/Vice-Chair

Corporate Officer/Deputy

5) CERTIFICATION

I hereby certify that this is a true and correct copy of *Fraser Valley Regional District Electoral Area D Water System Capital Construction Loan Authorization Bylaw No. 1511, 2019* as read a third time by the Fraser Valley Regional District Board of Directors on the day of

Dated at Chilliwack, B.C. this day of

Corporate Officer/Deputy

DRAFT

To: CAO for the Electoral Area Services Committee

Date: 2018-12-11

From: Katarina Duke, Engineering & Community Services Technologist

File No: 3920-20

Subject: Fraser Valley Regional District Hatzic Prairie Water Supply and Distribution System Service Area Amendment Bylaw No. 1512, 2019 and Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area Amendment Bylaw No. 1513, 2019

RECOMMENDATION

THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited as *Fraser Valley Regional District Hatzic Prairie Water Supply and Distribution System Service Area Amendment Bylaw No. 1512, 2019*;

AND THAT the Fraser Valley Regional District Board consider giving first, second and third readings to the bylaw cited *Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area Amendment Bylaw No. 1513, 2019*.

STRATEGIC AREA(S) OF FOCUS

Provide Responsive & Effective Public Services

DISCUSSION

Staff have received requests from one property owner for the boundaries of the Hatzic Prairie Water System Service Area System be amended and extended to include their property. This property was not previously connected to the Hatzic Prairie Water System. Additionally, Staff were informed of two other properties which were connected to the Hatzic Prairie Water System but not within the service area. The property owners were contacted and request to have the boundaries of the Hatzic Prairie Water System Service Area System Service Area be amended and extended to include their properties.

The property being removed from the Hatzic Prairie Water System and Hatzic Prairie Water System Capital Construction service areas was added these service areas earlier this year by Bylaws 1433, 2017 and 1434, 2017 respectively. These bylaws were originally brought forth earlier this year for a project

to construct a watermain extension on Sylvester Rd and brought properties adjacent to the watermain installation into both service areas. The property being removed is a corner parcel which was already fronting watermain and had always had the option of joining the water system. Accordingly, this property should not have been included in the aforementioned service area bylaws.

COST

No costs to the FVRD.

Each property owner is to be responsible for the cost of installing a service connection to their property. Additionally each property owner must pay a one-time Capital Improvement Connection Fee of \$2,067.03 prior to connecting to the system.

COMMENTS BY:

Sterling Chan, Manager of Engineering and Infrastructure: Reviewed and supported

Tareq Islam, Director of Engineering & Community Services: Reviewed and supported

Mike Veenbaas, Director of Financial Services: Reviewed and supported

Paul Gipps, Chief Administrative Officer: Reviewed and supported

FRASER VALLEY REGIONAL DISTRICT

BYLAW NO. 1512, 2019

A bylaw to amend the boundaries of the Hatzic Prairie Water Supply and Distribution System Service Area

WHEREAS the Fraser Valley Regional District Board of Directors ("the Board") has been petitioned to amend and extend the boundary of the Hatzic Prairie Water Supply and Distribution System Service Area established by Bylaw No. 0837, 2007;

AND WHEREAS the Board has also been petitioned to amend the boundary of the Hatzic Prairie Water Supply and Distribution System Service Area by excluding one property.

THEREFORE the Board of Directors of the Fraser Valley Regional District enacts as follows:

1) CITATION

This bylaw may be cited as *Fraser Valley Regional District Hatzic Prairie Water Supply and Distribution System Service Area Amendment Bylaw No. 1512, 2019*.

2) ENACTMENTS

- a) *Fraser Valley Regional District Hatzic Prairie Water Supply and Distribution System Service Area Establishment Bylaw No. 0837, 2007*, is hereby amended by extending the boundaries of the Service Area to include 3 properties and to exclude 1 property as shown on Schedule 1512-A attached to and forming an integral part of this bylaw.
- b) Schedule A to Bylaw No. 0837, 2007 is hereby replaced by Schedule 1512-B, attached to and forming an integral part of this bylaw. The amended boundaries of the service area shall be those portions of Electoral Area F as shown on Schedule 1512-B.
- c) That the provisions of all bylaws that are now in effect with regard to the establishment and amendment of the Hatzic Prairie Water Supply and Distribution System Service Area shall henceforth apply to those lands outlined on Schedule 1512-B of this bylaw.

3) SEVERABILITY

If a portion of this bylaw is found invalid by a court, it will be severed and the remainder of the bylaw will remain in effect.

4) **READINGS AND ADOPTION**

READ A FIRST TIME THIS _____ day of _____

READ A SECOND TIME THIS _____ day of _____

READ A THIRD TIME THIS _____ day of _____

CERTIFICATION AS TO SUFFICIENCY
AND VALIDITY OF PETITIONS this _____ day of _____

ADOPTED THIS _____ day of _____

Chair/Vice-Chair

Corporate Officer/Deputy

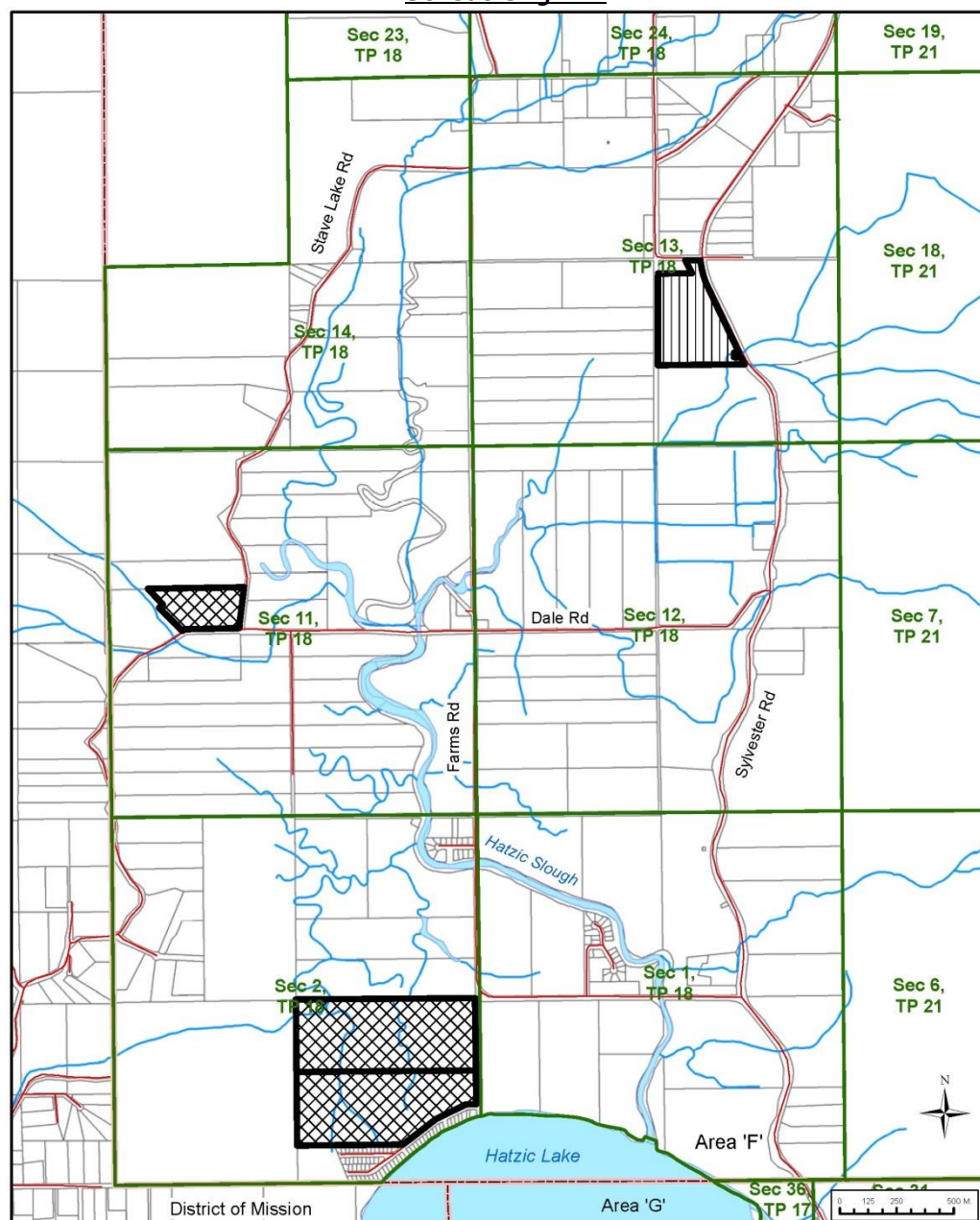
5) **CERTIFICATION**

I hereby certify the foregoing to be a true and correct copy of *Fraser Valley Regional District Hatzic Prairie Water Supply and Distribution System Service Area Amendment Bylaw No. 1512, 2019* as adopted by the Fraser Valley Regional District Board on the

Dated at Chilliwack, BC this _____

Corporate Officer/Deputy

FRASER VALLEY REGIONAL DISTRICT BYLAW NO. 1512, 2019
Schedule 1512-A



Map Reference: 92G019.4.3, 4.4 & 92G029.2.1, 2.2

Dec 4, 2018

Land District: New Westminster District

Land title Office: New Westminster

LEGEND

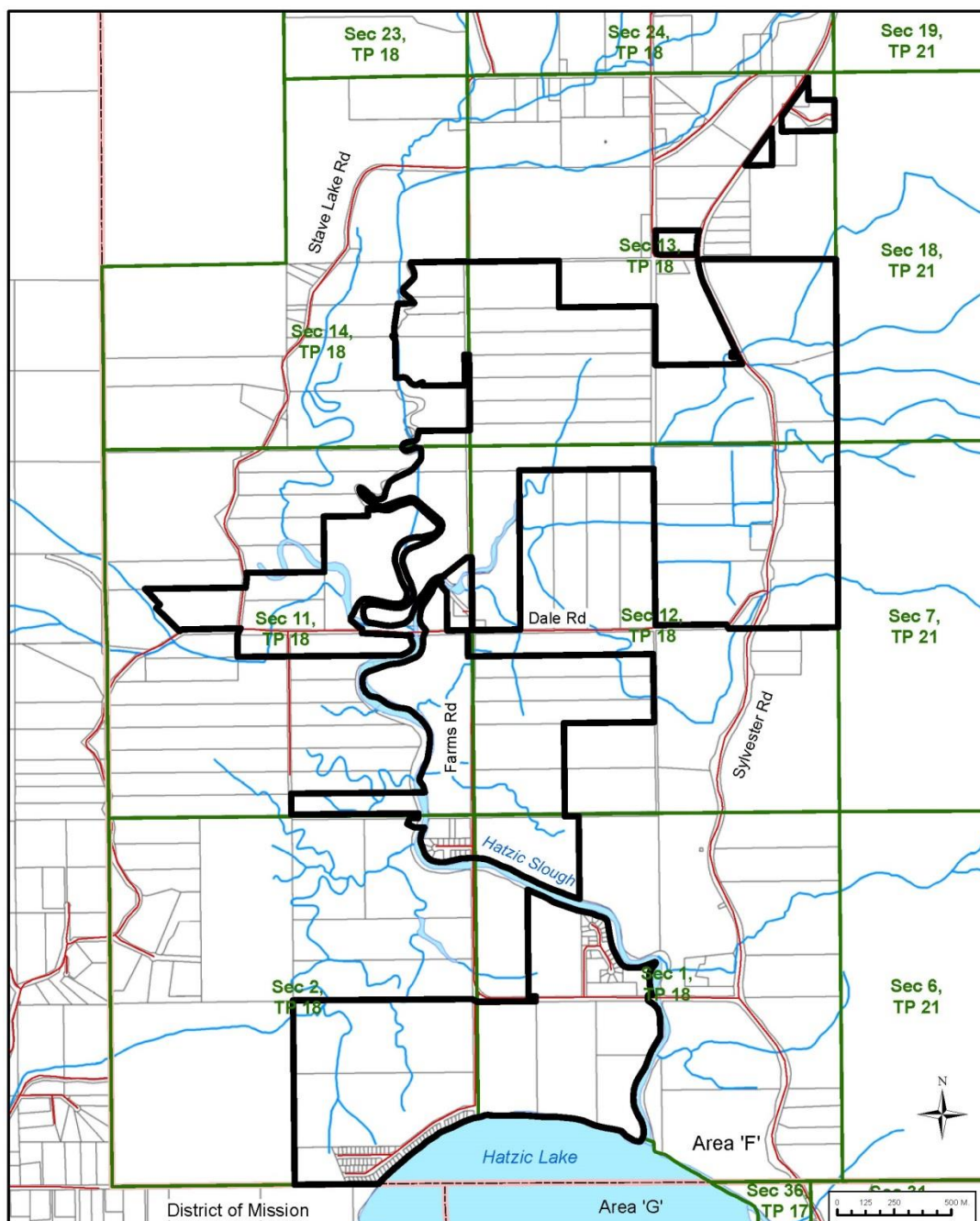
Area to be added to the Fraser Valley Regional District Hatzic Prairie Water Supply and Distribution System Service Area.



Area to be removed from the Fraser Valley Regional District Hatzic Prairie Water Supply and Distribution System Service Area.

This is map 1 of 1 constituting Schedule 1512-A attached to and forming part of *Fraser Valley Regional District Hatzic Prairie Water Supply and Distribution System Service Area Amendment Bylaw No. 1512, 2019*.

FRASER VALLEY REGIONAL DISTRICT BYLAW NO. 1512, 2019
Schedule 1512-B



Map Reference: 92G019.4.3, 4.4 & 92G029.2.1, 2.2

Dec 4, 2018

Land District: New Westminster District

Land title Office: New Westminster

LEGEND



Boundaries of the Fraser Valley Regional District Hatzie Prairie Water Supply and Distribution System Service Area as amended.

This is map 1 of 1 constituting Schedule 1512-B attached to and forming part of *Fraser Valley Regional District Hatzie Prairie Water Supply and Distribution System Service Area Amendment Bylaw No. 1512, 2019*.

FRASER VALLEY REGIONAL DISTRICT

BYLAW NO. 1513, 2019

**A bylaw to amend the boundaries of the
Hatzic Prairie Water System Capital Construction Service Area**

WHEREAS the Fraser Valley Regional District Board of Directors ("the Board") has been petitioned to amend the boundary of the Hatzic Prairie Water System Capital Construction Service Area established by Bylaw No. 1434, 2017, by excluding one property;

THEREFORE the Board enacts as follows:

1) CITATION

This bylaw may be cited as *Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area Amendment Bylaw No. 1513, 2019*.

2) ENACTMENTS

- a) *Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area Establishment Bylaw No. 1434, 2017* is hereby amended by reducing the boundaries of the Service Area to exclude the property shown on Schedule 1513-A attached to and forming an integral part of this bylaw.
- b) Schedule A to Bylaw No. 1434, 2017 is hereby replaced by Schedule 1513-B, attached to and forming an integral part of this bylaw. The amended boundaries of the service area shall be those portions of Electoral Area F as shown on Schedule 1513-B.
- c) That the provisions of all bylaws that are now in effect with regard to the establishment and amendment of the Hatzic Prairie Water System Capital Construction Service Area shall henceforth apply to those lands outlined on Schedule 1513-B of this bylaw.

3) SEVERABILITY

If a portion of this bylaw is found invalid by a court, it will be severed and the remainder of the bylaw will remain in effect.

4) **READINGS AND ADOPTION**

CERTIFICATION AS TO SUFFICIENCY
AND VALIDITY OF PETITIONS this

day of

READ A FIRST TIME THIS

day of

READ A SECOND TIME THIS

day of

READ A THIRD TIME THIS

day of

ADOPTED THIS

day of

Chair/Vice-Chair

Corporate Officer/Deputy

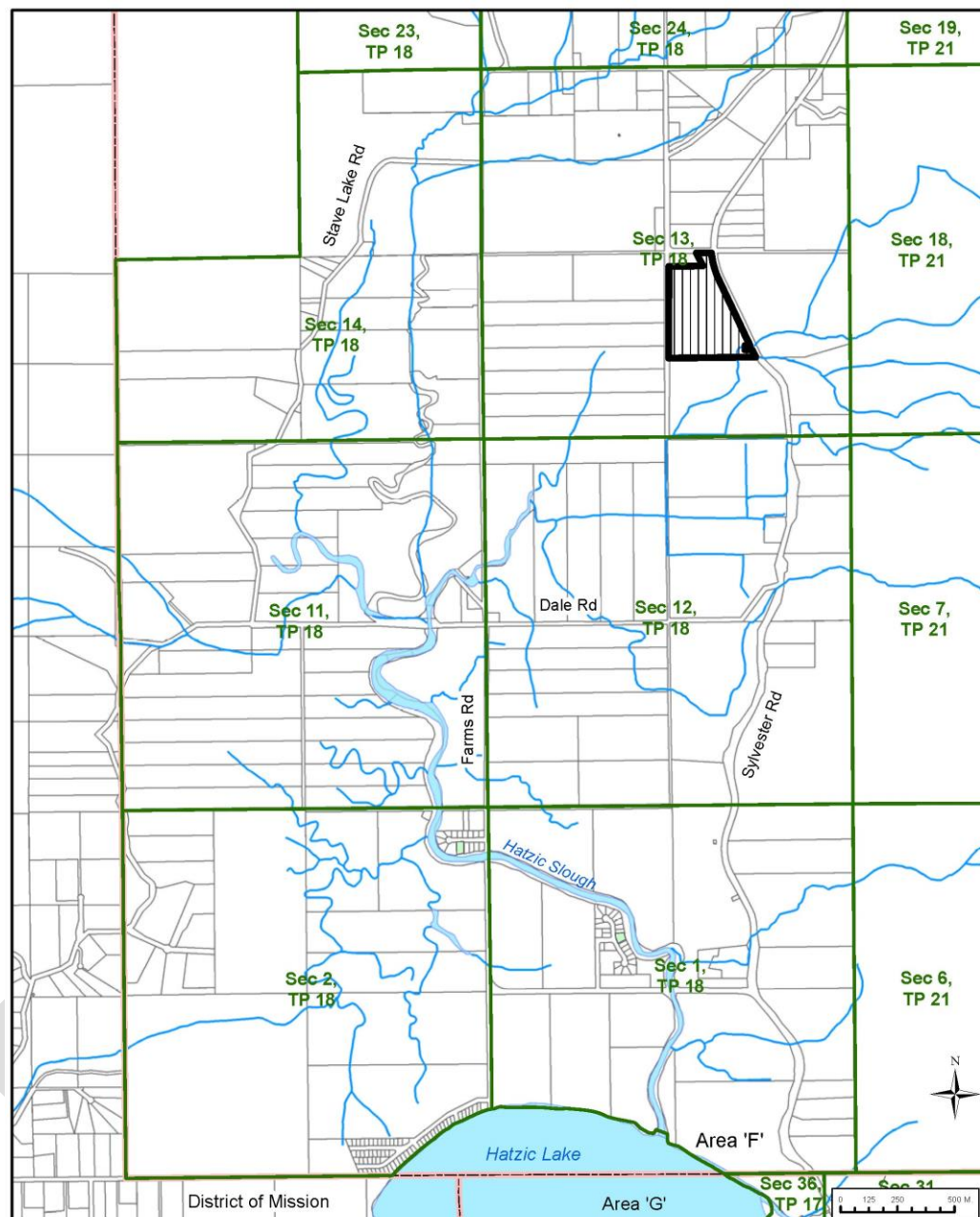
5) **CERTIFICATION**

I hereby certify the foregoing to be a true and correct copy of *Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area Amendment Bylaw No. 1513, 2019* as adopted by the Fraser Valley Regional District Board on the

Dated at Chilliwack, BC this

Corporate Officer/Deputy

FRASER VALLEY REGIONAL DISTRICT BYLAW NO. 1513, 2019
Schedule 1513-A



Map Reference: 92G019.4.3, 4.4 & 92G029.2.1, 2.2
 Land District: New Westminster District
 Land title Office: New Westminster

Dec 4, 2018

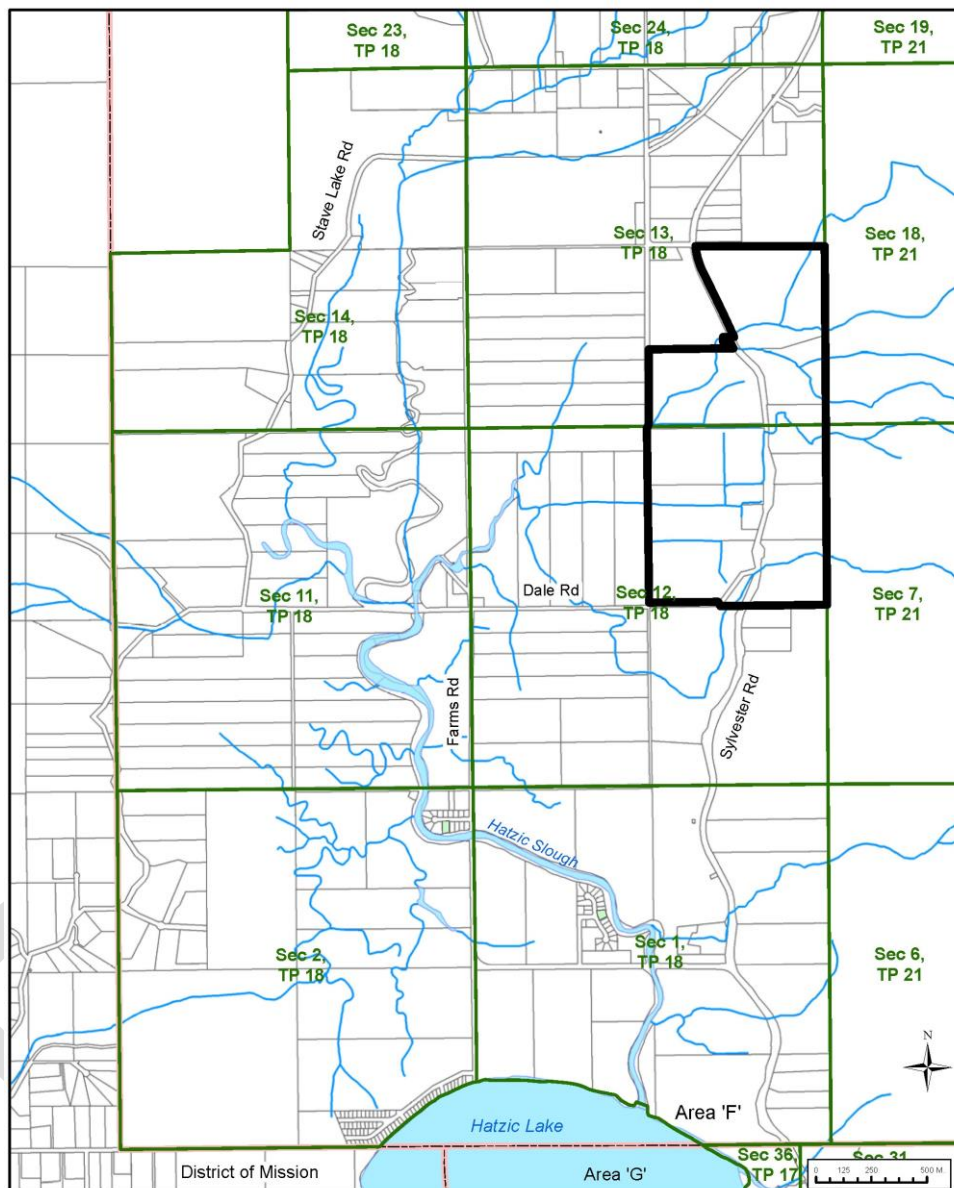
LEGEND



Area to be removed from the Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area

This is map 1 of 1 constituting Schedule 1513-A attached to and forming part of *Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area Amendment Bylaw No. 1513, 2019*.

FRASER VALLEY REGIONAL DISTRICT BYLAW NO. 1513, 20YY
Schedule 1513-B



Map Reference: 92G019.4.3, 4.4 & 92G029.2.1, 2.2

Dec. 4, 2018

Land District: New Westminster District

Land title Office: New Westminster

LEGEND



Boundaries of the Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area as amended.

This is map 1 of 1 constituting Schedule 1513-B attached to and forming part of *Fraser Valley Regional District Hatzic Prairie Water System Capital Construction Service Area Amendment Bylaw No. 1513, 2019*.

To: CAO for the Electoral Area Services Committee

Date: 2018-12-11

From: Dawn Smith, Planner II

File No: 6480-20-427

Subject: First Reading – Popkum-Bridal Falls Official Community Plan Bylaw No. 1501, 2018

RECOMMENDATION

THAT the Fraser Valley Regional District Board consider giving first reading to the bylaw cited as *Fraser Valley Regional District Official Community Plan for Popkum – Bridal Falls, Bylaw No. 1501, 2018*;

THAT the Fraser Valley Regional District Board authorize community engagement as outlined in the report dated December 11, 2018 to provide feedback on the draft Official Community Plan Bylaw No. 1501, 2018;

AND THAT draft *Fraser Valley Regional District Official Community Plan for Popkum – Bridal Falls, Bylaw No. 1501, 2018* be referred to various agencies for comment.

STRATEGIC AREA(S) OF FOCUS

Support Environmental Stewardship
Foster a Strong & Diverse Economy
Support Healthy & Sustainable Community
Provide Responsive & Effective Public Services

PRIORITIES

Priority #2 Air & Water Quality
Priority #4 Tourism
Priority #5 Outdoor Recreation

BACKGROUND

An official community plan is, “a statement of objectives and policies to guide decisions on planning and land use management, within the area covered by the plan, respecting the purposes of local government” (Local Government Act, s. 471(1)).

An official community plan does not commit or authorize the regional district to proceed with any project that is specified in the plan. Its primary effect is that all bylaws enacted or works undertaken by the Regional District Board, after the adoption of the OCP must be consistent with the plan (Local Government Act, s. 478).

The current Popkum-Bridal Falls OCP has served the community for over 20 years. The OCP was first adopted in 1998, with several amendments to facilitate suburban residential and commercial

developments. Overall, the OCP has been an effective tool and development has occurred generally as set out in the Plan policies. Plan policies have guided an average annual population growth of 2.2% from 1,065 persons in 1996 to 1,529 persons in 2016 (Statistics Canada).

The OCP outlines the long-term vision for the future of Popkum-Bridal Falls and a course of action to achieve it. In order to respond to a growing community and changing values, the Popkum-Bridal Falls OCP update was initiated in 2014 with consultation and outreach to the community, First Nations, industry/business, Popkum Ratepayers Association, and Provincial ministries.

The OCP contains new and revised policies that reflect consultation with:

- Community events – three public events and online survey
- Industry and developer focussed workshops
- Popkum Ratepayers – seven meetings
- Individual landowners – multiple meetings
- Stakeholders of interest – twenty five groups
- Community wide online survey
- Two community events - open house format
- School District #33
- City of Chilliwack
- Ministry of Transportation and Infrastructure
- Agricultural Land Commission
- First Nations, including Stó:lō, Peters Band, Popkum and Cheam First Nation
- BC Parks

As part of the OCP update, an overview geohazard assessment was completed by Braun – Cordilleran Geoscience which unexpectedly identified a complex slope of concern that needed further technical investigation. The subsequent technical investigation and report was completed in Spring 2018. The Bridal Falls Landslide Hazard Assessment – Timber Camp Linears report was prepared by BGC Engineering Ltd. Policies that reflect the new Bridal Falls geohazard information have been incorporated into the draft Plan.

New OCP policies continue to focus residential growth and development in the West Popkum area and support the Bridal Falls tourism recreation corridor. The update contains new policy to address: infrastructure and services; suburban residential infill and design policies; parks and trails' agri-tourism; the Agricultural Land Reserve; and, geohazard policies. Details of the new policies are summarized in the Discussion section below.

In addition to policy updates, ensuring the OCP document is accessible to all users is an important overall objective. The number of Development Permit Areas has been reduced to five from the previous six. The OCP update includes revisions to the format/layout, photos and utilizes straightforward language and illustrations where possible.

DISCUSSION

Significant policies in the Popkum-Bridal Falls OCP draft include:

Policy Themes	Description
Parks and Trails	<ul style="list-style-type: none"> Popkum-Bridal Falls is rich in parks but lacks trail connections between important assets such as Cheam Lake Wetlands Regional Park, Bridal Veil Falls Provincial Park, the Fraser River and the three local community parks. OCP policies identify: potential park sites along the Fraser River and Mount Cheam base; possible Cheam Lake Wetlands Regional Park expansion; significant trail corridors to connect existing parks; and, neighbourhood linear trail options including pedestrian crossings in West Popkum. Additional policies include support for partnerships with First Nations / Province of BC / NGO's, consideration of long-term financial viability of park assets; use of native plants in landscaping; and, advocacy for extending the open season of Bridal Veil Falls Provincial Park.
Suburban Residential growth and design	<ul style="list-style-type: none"> Plan policies maintain the 800-1,100 metre square lot sizes that were identified by ratepayers as a key value of the community. Design policies support gentle infill opportunities to address: privacy, tree retention, linear trails, building design, and lot layout.
Infrastructure and Services	<ul style="list-style-type: none"> Policy to introduce development nodes for sewer servicing in West Popkum which support a new Class A+ sewer system for the community.
Geohazard and Risk Management	<ul style="list-style-type: none"> Plan policies introduce the new geohazard overview study by Cordilleran-Braun Geoscience which identifies potential hazard and significant hazard areas, including specific hazard types (i.e. debris flow, debris flood, etc.). Includes new Development Permit Area to address Timber Camp Linears rock avalanche. Exemptions will allow development to proceed unless subdivision or density increase is proposed.
Bridal Falls Uplands	<ul style="list-style-type: none"> The hillside area west of Bridal Falls features a cluster of several hundred acres of privately owned lands free of geotechnical hazards and outside the ALR. These lands present an opportunity

	<p>for future growth once the West Popkum area is built out.</p> <ul style="list-style-type: none"> Plan policy supports neighbourhood plan process for this area to address water, sewer, and road/transportation services, parks and trails, and hillside development guidelines.
Tourism Commercial	<ul style="list-style-type: none"> Popkum and Bridal Falls each feature core commercial areas that are growing and evolving as consumer needs change. Business community feedback has identified a lack of tourism destination since the loss of the Dinotown and Minter Gardens attractions; the lack of profile/advertising to draw the travelling public off the Trans-Canada Highway #1 to utilize local businesses. Popkum residents have expressed a desire to maintain high quality tourism commercial. Plan policies include Development Permit Area for form and character to support quality architecture.
Agriculture	<ul style="list-style-type: none"> ALR lands encircle the residential neighbourhood of Popkum and contribute to the rural character of the community. Plan policies clarify the framework for ALR boundary adjustments and support agri-tourism and accommodation uses (when accessory to a farm use).

Next Steps

Milestone	Target Date
First Reading of OCP Electoral Area Services Committee and Regional Board	December 2018
Popkum Ratepayers Annual General Meeting (AGM) Presentation of Draft OCP and invitation for feedback	January 2019
Feedback to Draft OCP <ul style="list-style-type: none"> - Informal Review Committee - Referrals to Stakeholders - Newsletter - Open House(s) Event - Survey 	Spring 2019
Revisions Based on feedback	Spring 2019
Consider the OCP in conjunction with Financial Plan & other plans	Summer 2019

2nd Reading of OCP Electoral Area Services Committee and Regional Board	
Referral of the OCP to the Agricultural Land Commission	Summer 2019
Open House & Public Hearing	Summer 2019
3rd reading and adoption* Electoral Area Services Committee and Regional Board <i>*subject to consideration of public hearing feedback</i>	Summer 2019

COST

Draft Popkum-Bridal Falls Official Community Plan Bylaw No. 1501, 2018 contains policies identifying the need for neighbourhood plan for Bridal Falls Uplands, ALR boundary review, park management planning and other activities that, if acted on, would have significant costs. However, these actions are anticipated to be development driven or would require separate consideration, budgeting and approval by the Regional Board before being undertaken. Plan policies alone do not authorise or commit the Regional District to undertake these actions.

Further consideration of the impact of this draft plan on the FVRD Financial Plan will happen, as required by the Local Government Act, prior to second reading and public hearing. Comments from Director of Finance regarding the impact of the draft plan on the Financial Plan will be sought to assist the Board with its consideration in this respect.

Costs associated with the development of this plan are provided for in the EA Planning budget.

CONCLUSION

The draft Popkum-Bridal Falls Official Community Plan Bylaw No. 1501, 2018 is ready for public feedback and developed to an extent that it would now be productive for it to receive initial consideration by the Board, be made available for public review, and be referred to various agencies for comment. Amendments to the draft plan, such as those arising from community feedback, will be consolidated and presented to the Board at second reading. The public hearing will happen after second reading.

COMMENTS BY:

Graham Daneluz, Deputy Director of Planning & Development reviewed and supported

The current official community plan (OCP), adopted in 1998, has been successful in achieving the development concept outlined in the plan. The fundamental land use patterns and development

services are now established. The role of this next plan, *Bylaw 1501*, is to guide the remaining infill development in Popkum so that it integrates sensitively into the community and enhances the network of trails, parks and greenspaces. This will happen over the next 10-20 years. In Bridal Falls, the new plan continues to support recreation-oriented commercial development within the constraints associated with its location at the base of steep mountain slopes. This draft OCP was developed with extensive public input and technical review. It is a comprehensive document that provides an updated vision and framework to guide land use decisions in the Bridal-Falls community.

Margaret Thornton, Director of Planning & Development	reviewed and supported
Mike Veenbaas, Director of Financial Services	No further financial comment.
Paul Gipps, Chief Administrative Officer	Reviewed and supported

FRASER VALLEY REGIONAL DISTRICT

BYLAW NO. 1501, 2018

A Bylaw to Adopt an Official Community Plan for Popkum-Bridal Falls, Electoral Area "D"

WHEREAS the Fraser Valley Regional District Board of Directors ("the Board") has deemed it advisable to adopt *Fraser Valley Regional District Official Community Plan for Popkum-Bridal Falls Bylaw No. 1501, 2018* for a portion of Electoral Area "D";

THEREFORE the Board enacts as follows:

1) CITATION

This bylaw may be cited as *Fraser Valley Regional District Official Community Plan for Popkum-Bridal Falls Bylaw No. 1501, 2018*.

2) AREA OF APPLICATION

This bylaw shall apply to the area shown on the map attached hereto as *Schedule 1 Boundary of the Plan Area* contained in *Schedule 1501-A Official Community Plan*.

3) SCHEDULES

Fraser Valley Regional District Official Community Plan for Popkum-Bridal Falls Bylaw No. 1501, 2018 is comprised of the text, schedules, maps, tables and figures contained in *Schedule 1501-A Official Community Plan* which forms an integral part of this bylaw.

4) SEVERANCE

If any schedule, section, subsection, sentence, clause, phrase or map of this Bylaw is for any reason held to be invalid by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Bylaw.

5) REPEAL

Official Community Plan for Popkum-Bridal Falls part of Electoral Area "D" Bylaw No. 200, 1997, and any and all amendments thereto, are hereby repealed.

6) READINGS AND ADOPTION

READ A FIRST TIME THIS _____ day of _____

READ A SECOND TIME THIS _____ day of _____

A PUBLIC HEARING WAS HELD THIS _____ day of _____

READ A THIRD TIME THIS _____ day of _____

ADOPTED THIS _____ day of _____

Chair/Vice-Chair

Corporate Officer/Deputy

7) CERTIFICATION

I hereby certify the foregoing to be a true and correct copy of *Fraser Valley Regional District Official Community Plan for Popkum-Bridal Falls Bylaw No. 1501, 2018* as adopted by the Board of Directors of the Fraser Valley Regional District on the _____ day of _____.

Dated at Chilliwack, B.C. this _____ day of _____

Corporate Officer/ Deputy

**FRASER VALLEY REGIONAL DISTRICT
OFFICIAL COMMUNITY PLAN FOR POPKUM-BRIDAL FALLS
BYLAW NO. 1501, 2018**

**SCHEDULE 1501-A
Official Community Plan**

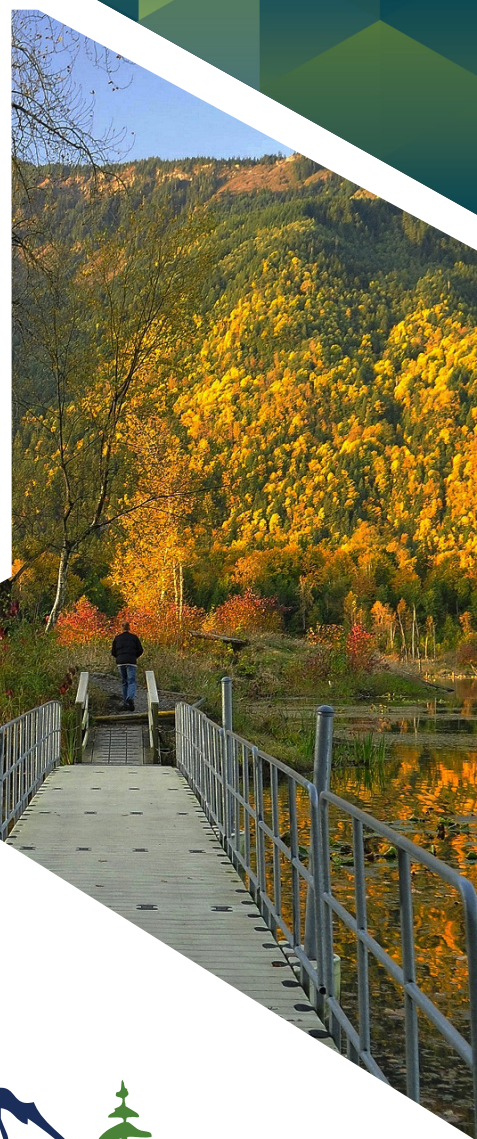
This is *Schedule 1501-A Official Community Plan* which is attached to and which forms an integral part of *Fraser Valley Regional District Official Community Plan for Popkum-Bridal Falls Bylaw No.1501, 2018*.

Chair/Vice Chair

Corporate Officer/Deputy

OFFICIAL COMMUNITY PLAN

POPKUM – BRIDAL FALLS



Serving citizens and communities first.

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PHOTO CREDITS

le. PG.2 – Rosedale Annie (flickr)

Acknowledgements

Thank you for your participation

Thank you to the numerous individuals and agencies who helped develop and inform the Official Community Plan. The Plan was developed in consultation residents, business owners and stakeholders of Popkum- Bridal Falls. Representatives of the Cheam First Nation and Stó:lō governments were consulted in the development of the Plan. In addition, representatives from the Agricultural Land Commission, City of Chilliwack, School District Number #33, Ministry of Transportation and Infrastructure, BC Parks and other governments and agencies provided valuable input.



**Children's art, My Popkum-Bridal Falls
Popkum Fire Department Open House
October 2015**

Children's art comes to life. All the elements that make Popkum-Bridal Falls a desirable place for residents and visitors....easily accessible mountains, forests, and outdoor recreation.

1.0 INTRODUCTION

1.1 Purpose of the Official Community Plan

What is an Official Community Plan?

An Official Community Plan identifies where we are going and how we will respond to growth and change over the next 20 years.

- **Sets out the big picture** for the future of the community.
- **Long term perspective** to identify what will Popkum-Bridal Falls be like in 20 years?
- **Broad statement of objectives and policies** that support the long term vision for Popkum-Bridal Falls.
- **Guides the Regional Board** with Plan policies give direction to decisions, not regulation. Bylaws enacted and works undertaken by the Regional District must consider the OCP policies.
- **Reflects community values and balances interests** based on feedback from stakeholders and citizens to the Regional Board.
- **Wide ranging impact** with policies that impact a broad range of Regional District interests from sewage disposal, subdivision to parks, and more.
- **Identifies steps** to address community needs. Not all issues are resolved by the Plan. Implementation of Plan policies will occur over time through subsequent specific plans, bylaws and as development occurs.



Provincial legislation in the *Local Government Act* requires OCP's to address the following key areas:

- **residential development** and their location, amount, type and density required to meet anticipated housing needs over a period of at least 5 years;
- **commercial development; industrial, institutional, agricultural, recreational and public utility land uses** and their respective location, amount and type of both present and proposed uses;
- **sand and gravel deposits** and their location and area suitable for future extraction;
- **hazardous and environmentally sensitive lands**, and development restrictions for their use;
- **major road, sewer and water systems** and their approximate location and phasing;
- **public facilities** proposed for the area, and their approximate location and type.

housing better
parks cost living future
services Bridal-Falls
Popkum water
development trails

1.2 Effect of the Plan

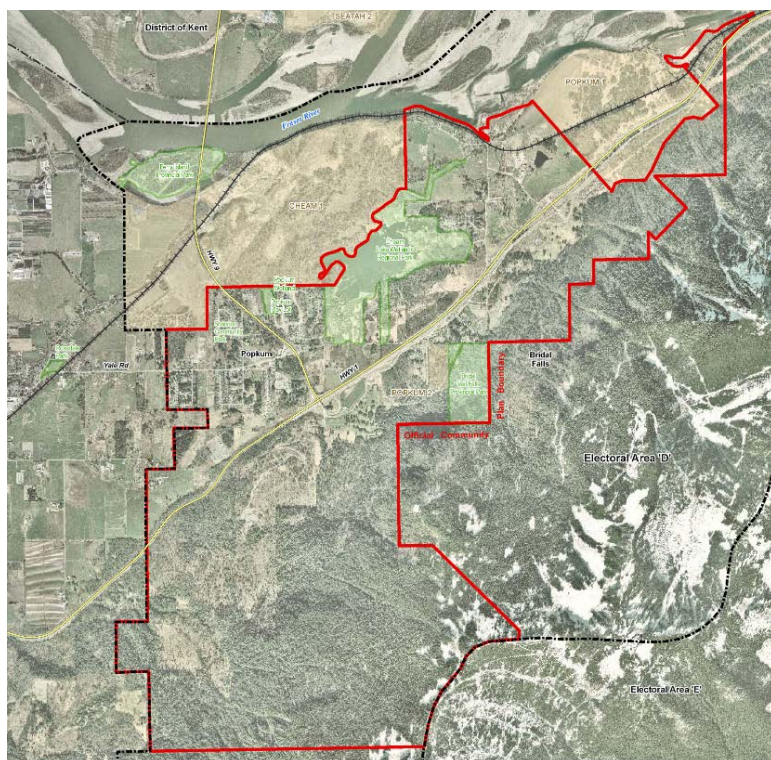
What does an OCP do?

The Regional Board is required by the *Local Government Act* to comply with the policies of this Official Community Plan as follows:

- **Zoning bylaw amendments must be consistent.** A zoning bylaw enacted prior to the effective date of this Plan is not altered by this Plan. Where such a bylaw is amended, the amending bylaw must be consistent with the provisions of the Official Community Plan.
- **OCP Policy is a guide, not obligation.** The adoption of this Plan does not commit the Regional Board or any other governmental body to undertake any project outlined herein, nor does it authorize the Regional Board or any other governmental body to proceed with a project except in accordance with the procedures and restrictions laid down by any Act.
- **All bylaws must be consistent with the OCP.** All bylaws enacted and works undertaken by the Regional Board shall be consistent with the Official Community Plan.

1.3 Plan Area Location and Boundaries

Where does the OCP apply?



Popkum and Bridal Falls is part of Electoral Area "D".

The community is located just east of the City of Chilliwack's eastern boundary, between the Cheam ridge and the Fraser River.

The Official Community Plan boundary covers 4482 hectares (11,076 acres).

The formal boundaries of the Plan area are shown on Schedule 1 - Boundary of Plan Area.

1.4 The Planning Process

How the Plan was created

The preparation of this Official Community Plan involved consultation with the Popkum-Bridal Falls residents, provincial and federal agencies, local interest groups and others. The planning process included:

- open house sessions at Parks Day event in Cheam Lake Wetlands Regional Park and Popkum Fire Department Open House event;
- breakfast meetings with developer and business community in Popkum and Bridal Falls;
- newsletters & surveys mailed and available online to households in the Plan boundary;
- early and on-going consultation with various agencies;
- extensive dialogue with Popkum Ratepayers Association, comprised of local residents and property owners;
- many meetings with stakeholders, government agencies, Cheam First Nation and others; and,
- open houses and public hearings prior to the adoption of the Official Community Plan.

Consultation was guided by “Electoral Area “D” Official Community Plan Update: Consultation Strategy and the Electoral Area Services Committee (EASC) and the FVRD Regional Board. The OCP bylaw was adopted at the <insert date here, 2019> Regional Board Meeting.



1.5 Plan Structure and Interpretation

How to read and use the OCP

In this Official Community Plan, policies are numbered and clearly identified. Policies are often preceded by a discussion which is intended only to provide the reader with context.

Discussions are summaries only. They do not constitute Plan policies.

Key Interpretation Terms

Policy intent of the Regional Board is expressed through Plan policy. Particular attention should be given to the wording of policies contained in the Plan:

“shall”	imperative course of action which is within the scope of the Regional Board’s powers to provide, enact, regulate or enforce;
----------------	--

“should”	desirable course of action to be taken by the Regional Board or other body or person;
-----------------	---

“may”	permitted course of action which is available to the Regional Board or other bodies or persons; and,
--------------	--

“will”	result to be expected on the basis of present information.
---------------	--

Policy

1.5.1 Understanding the differences of statements, policies and discussions. In this Plan, only statements clearly identified as policies of the Regional Board should be understood as Plan policies. Plan policies stand on their own as expressions of the Regional Board. Discussions, or non-policy statements, within the Plan are brief summaries provided for context only. They do not constitute plan policies and must not be interpreted as complete statements of the intention of the Regional Board with respect to the policies that follow them.

1.5.2 Designation boundaries are generalized. Boundaries between different land use designations are general and are not intended to be hard boundaries, particularly in split designated lands, or in circumstances where topography, agricultural land uses, watercourses affect land use.

Understanding the Plan Structure

Policies

- numbered and clearly identified;
- prefaced with the title 'Policy';
- discussed and given context in the preceding paragraph which is intended only to provide the reader with a better understanding;
- stand on their own.

Discussions

- summaries only and are not comprehensive;
- not Plan policy and not be interpreted as complete statements of the intention of the Regional Board with respect to the policies that follow them.

Schedules

- Display official designations of the Regional Board, including;
 - land use designations;
 - current and potential parks; and
 - development permit areas.
- Boundaries between different land use designations are general and are not necessarily intended to conform to property lines.
- Information is updated and amended as required.

Maps

- Display information that is useful in understanding Plan policies and their context, including;
 - Agricultural Land Reserve (ALR) boundaries;
 - floodplain and hazardous areas
 - service areas of the FVRD.
- Information is unlikely to be updated. Readers should be aware that they will become outdated.

1.6 Plan Amendment and Review

How and when does the OCP evolve and change?

The Plan will need to evolve and change over time when community values shift, new information or legislation arises, or significant or unanticipated development proposals come forward. Plan amendments should include extensive public input and reflect the interests of the community.

Typically a Plan update or amendment occurs by:

- **Application.** Development proposals which require rezoning and are inconsistent with Plan policy will require an OCP amendment application. The Regional Board will respond to defer, reject or accept the application, and determine if a Plan policy review is necessary.
- **Regional Board direction.** Periodic review of the Plan may be necessary to update policies and respond to new information, servicing or hazard studies, development trends, or legislation.

Policy

- 1.6.1 **Periodic updates anticipated.** An update and review of the Official Community Plan should occur periodically to ensure policies reflect community interests and direction on development and land use over the next 20 years, as changing community values and needs arise.
- 1.6.2 **Consultation necessary.** Public consultation and a Public Hearing as required by the *Local Government Act* may be necessary when completing an Official Community Plan review and amendment.
- 1.6.3 **Major amendments.** Major amendments to the Plan for complex proposals or which involve uses not contemplated within the Plan area and unanticipated by Plan policy may be deferred until broader Plan amendment and consultation process is complete. Additionally, the Board may wish to consider such Plan amendment applications separate from any related zoning amendment applications.

1.7 Consultation and Cooperation

Working together

Successful implementation of the Official Community Plan depends upon community support, stakeholder involvement and the cooperation of senior governments. Accordingly, the policies of this Plan reinforce the Regional Board's commitment to open discussion, local involvement and cooperation in community development. Key partners in the development and ongoing implementation of the OCP include;

- Property Owners and Residents
- Business and Industry
- Cheam First Nation
- Popkum First Nation
- City of Chilliwack
- School District No.33
- Agricultural Land Commission
- Province of British Columbia

Policy

- 1.7.1 **FVRD commitment to consultation.** Consultation during the development, amendment or repeal of this Official Community Plan will meet or exceed the requirements of Section 475 of the *Local Government Act*. Consultation should be commensurate with the scope of the change contemplated.
- 1.7.2 **Working together with community, neighbours and stakeholders.** The Regional District will work together and assist in coordinating discussions between property owners and residents, school districts, provincial and federal agencies on matters of land use, roads and services.
- 1.7.3 **Broad based and early consultation is encouraged.** Development proponents which require a zoning and/or OCP amendment should undertake early communication and consultation with community stakeholders, including but not limited to property owners, residents, business operators and First Nations to identify areas of mutual interest, concerns and options.
- 1.7.4 **First Nations.** Neighbouring Popkum and Cheam First Nations, and the broader First Nations community interests should be consulted about amendments to this Plan that may affect their interests, particularly when land designations on Crown land or along our shared boundary are under consideration; cultural impacts; shared services; or, partnerships opportunities. The scope and form of consultation shall be determined by the Regional Board and informed by discussion with the First Nations.
- 1.7.5 **City of Chilliwack.** The City of Chilliwack should be consulted about amendments to this Plan that may affect their interests, particularly when land designations along the municipal boundary are under consideration; transportation/traffic implications are evident; major services are proposed; or, opportunities for shared services and coordinated planning are apparent. The scope and form of consultation shall be determined by the Regional Board and informed by discussion with the municipality.

1.8 Implementation

Role of the Plan Policy

The policies of the Plan may be implemented in a number of ways. Policies respecting matters within the jurisdiction of the Regional District can be implemented through the provision of services; servicing practices and standards; and, the subdivision and development control process, including zoning bylaws, subdivision standards, and the issuance of permits.

The Plan also contains advocacy policies which relate to matters that are the jurisdiction of provincial agencies or other authorities. These policies may be advanced through liaison with the responsible authority, including referral responses.

Policy

- 1.8.1 **Range of implementation roles.** The policies of this Plan will be implemented by the Regional Board in a variety of ways, including subdivision and development control, servicing decisions and policy approaches. Plan policies which relate to matters that are the jurisdiction of provincial agencies or other authorities will be advanced through liaison, advocacy and referral responses.
- 1.8.2 **Approving Officer.** This Plan may be taken by the Ministry of Transportation and Infrastructure Subdivision Approving Officer as a statement of the public interest.

2.0 OUR COMMUNITY



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2.1 Community Overview

Rural character with urban services

Popkum and Bridal Falls are two distinct neighbourhoods with an overall population of 1529 residents¹. The community is located between the lower slopes of Mt. Cheam and the Cascade mountain range on an upland bench along the Fraser River, yet largely outside of the floodplain. This natural setting provides a scenic backdrop for the two distinct neighbourhoods:

- **Popkum** – a suburban residential neighbourhood bordered with conservation and agricultural lands in east Popkum.
- **Bridal Falls** – an existing tourism commercial corridor with a mix of destination activities, services, resort-accommodation and residential.

Popkum-Bridal Falls has a wide range of amenities and services that support a rural lifestyle and assist residents and businesses in meeting their day to day needs. More specialized services require travel to Chilliwack and points beyond. Local services include:

- **Commercial services.** Service station, garden centre and food service business at the (a) Highway 9 and Yale Road roundabout, (b) Bridal Falls Road corridor.
- **Park facilities** at Shannon Community Park, Rose Garden Community Park, Stonewood Community Park, two planned community parks at Thompson Road and west of Llanberis Way. In addition to larger parks; Cheam Wetlands Regional Park and Bridal Veil Falls Provincial Park.
- **Walking trail network** – expanding with each new development
- **Fire Department** – Popkum Volunteer Fire Department
- **Community water** – system owned and operated by the FVRD
- **Highway access.** Highway 9 and Highway 1 access
- **Rosedale Community Traditional School**, grades K-10 (built in 2010)
- **Transit service** between Chilliwack and Harrison Hot Springs with up to 19 trips daily (2017).

¹ 2016 Statistics Canada Census

2.2 Population and Building Statistics

A Growing Community

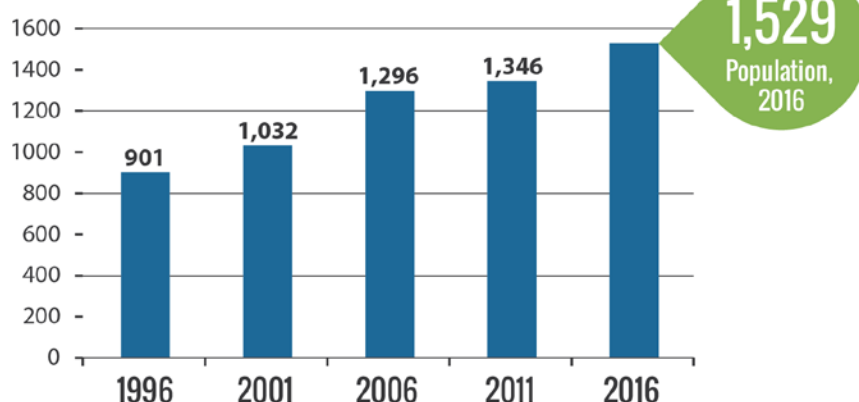
Understanding the dynamics and character of population growth is important for identifying the amount and type of land use needs of a community. This section will look at population, mobility, household and family characteristics, and economic properties. Unless otherwise noted, data used in this section are derived from the Statistics Canada Census.

Popkum-Bridal Falls is a unique community in the Fraser Valley, with a niche of valuable, large suburban residential lots and high quality housing, along with tourism commercial businesses in a natural setting and outdoor recreation opportunities. Not surprisingly, the community demographics reveal a population increase of 12% (2011-2016) to 1529 residents, of predominantly families with above average incomes and education than other FVRD communities.

Overall Population

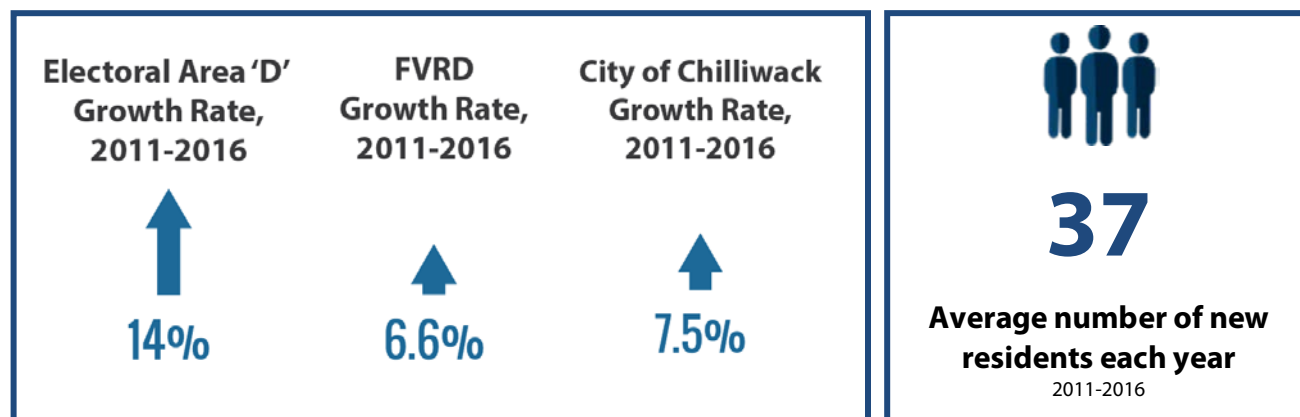
Residents are increasingly drawn to the neighbourhoods of East and West Popkum as new developments proceed over the years. Since 1996, the community has increased by 628 residents. This represents 70% population growth over 20 years.

Electoral Area 'D' Population, 1996-2016



Population Growth and Trends

Electoral Area D grew at a faster rate than the overall Fraser Valley Regional District as a whole between 2011 and 2016.

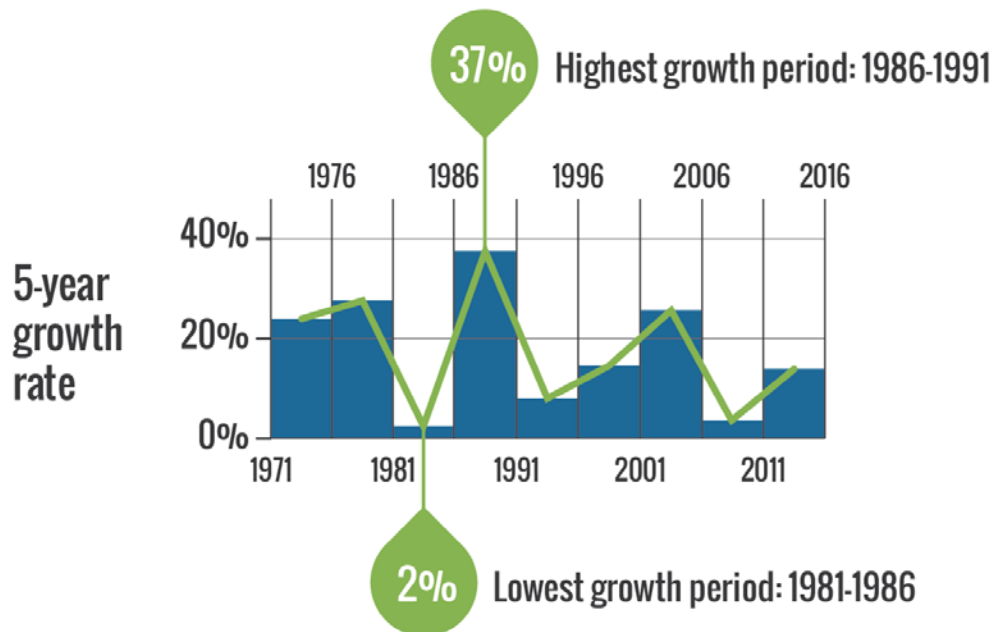


Growth Trends

Stable growth with peaks

Population growth in Electoral Area D has peaked over certain 5-year periods and remained relatively flat in others. Most notably, the population growth between 1986 and 1991 was 37%, with a high level of subdivision activity allowing more families to move into the area.

Electoral Area 'D' Population Growth Rate



Periods of rapid population increase followed by stable periods are typical in Popkum-Bridal Falls. The 12% population growth experienced between 2011 and 2016 is below the average 5-year growth rate of 17% for the Electoral Area since 1971.

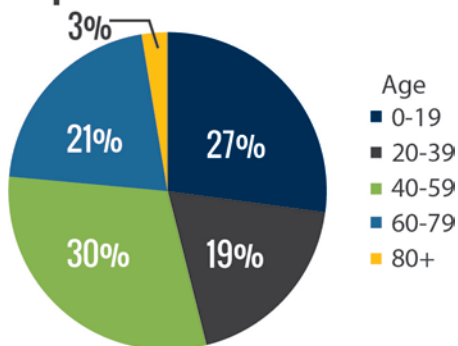
5-year growth rate average (1971-2016): **17%**

Population Age

Local Population

Age characteristics for Area D indicate that most residents were either young or middle-aged, with those aged 80 or older representing less than 3% of the overall population. Millennial residents (those aged 20-39 in 2016) represented a smaller proportion of the population than did their younger and older counterparts.

**Electoral Area 'D'
Population Breakdown**

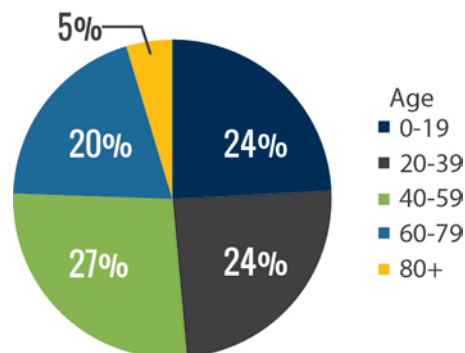


Average age
in Area 'D': **40**

Regional Population

The Fraser Valley Regional District as a whole had a more even age distribution than Area D, with more millennials, and nearly twice the proportion of residents aged 80+. Those aged 40-59 still represented the largest proportion of the overall population.

**FVRD Population
Breakdown**



Average age
in FVRD: **41**

Housing

Most Popkum-Bridal Falls residents live in single-family homes. 86% of dwelling units in 2016 were single-family homes, with the remaining 14% made up of mobile homes and other dwelling types. There are no apartment buildings or duplexes in Electoral Area D.

The average household size in Popkum-Bridal Falls in 2016, at 2.8 persons per household, is slightly above the average for the Fraser Valley Regional District of 2.7 persons. This is unchanged from 2011 Census data.



Single-family
homes in Area 'D'



Mobile homes
in Area 'D'



Average
persons per
household

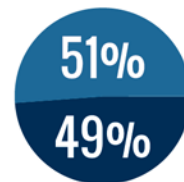
Household Characteristics

Nearly half of all Electoral Area "D" households do not have children residing within the home.

41%

of households
were home to 2
people in 2016

Of the 425
Couples
in Area D:



Have
Children

Have No
Children

Electoral Area "D" residents are more likely to be in a married or common-law relationship vs. FVRD average.

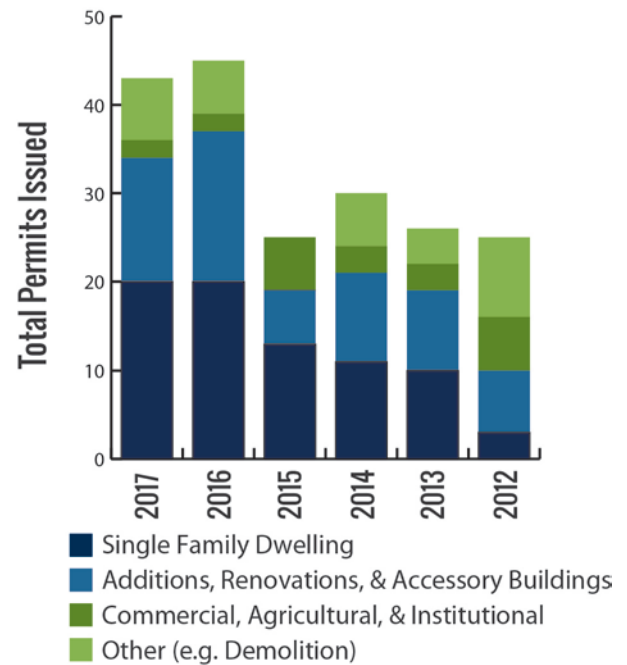
Percentage of Area D
residents aged 15+
married or common law: **72%**

Percentage of FVRD
residents aged 15+
married or common law: **60%**

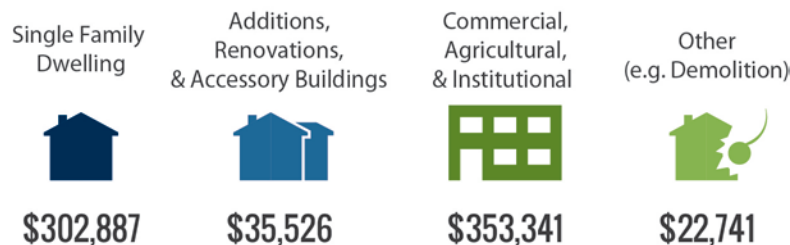
Development Data and Trends

Building Permits

2012-2017 FVRD Building Permit Statistics indicate that in this 6-year period, there was an average of 32 Building Permits of all types issued per year. In 1996, the year the previous Official Community Plan for Area D was released, building permit applications averaged 35 per year for the previous 5-year period.



Average Value of Issued Permits by Building Type, 2012-2017



Subdivision Activity

The majority of Electoral Area D's population is clustered in Popkum, a small area in the southwestern corner of the Electoral Area.

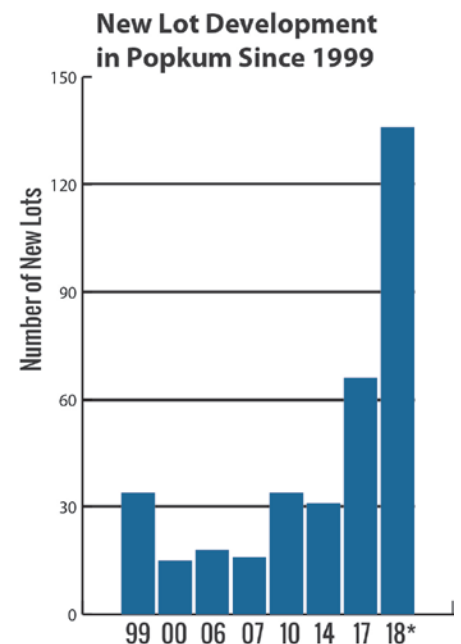
Popkum has been home to a number of subdivision developments since the 1970s that help explain the 'peaked' population growth spurts, followed by periods of relatively low population growth. As the area has filled out in the past two decades, fewer subdivisions have developed.

Approximately 350 lots were created between 1999 and 2018*, while over 200 were created between 1979 and 1995.

Total new lots created in Area 'D' since 1999: **350**

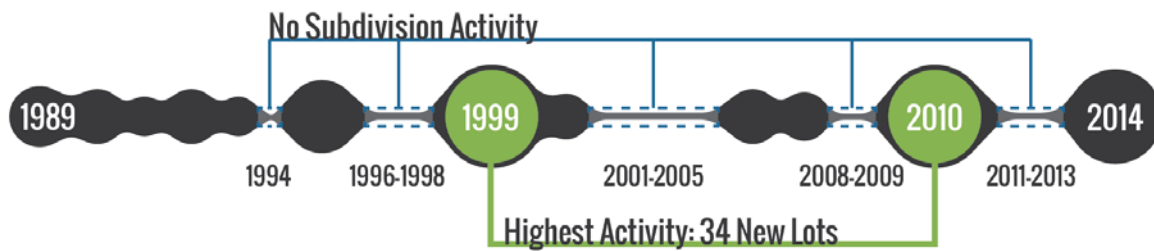
Equivalent to **980**

residents based on 2.8 persons per household, the 2016 average household size.



*Proposed

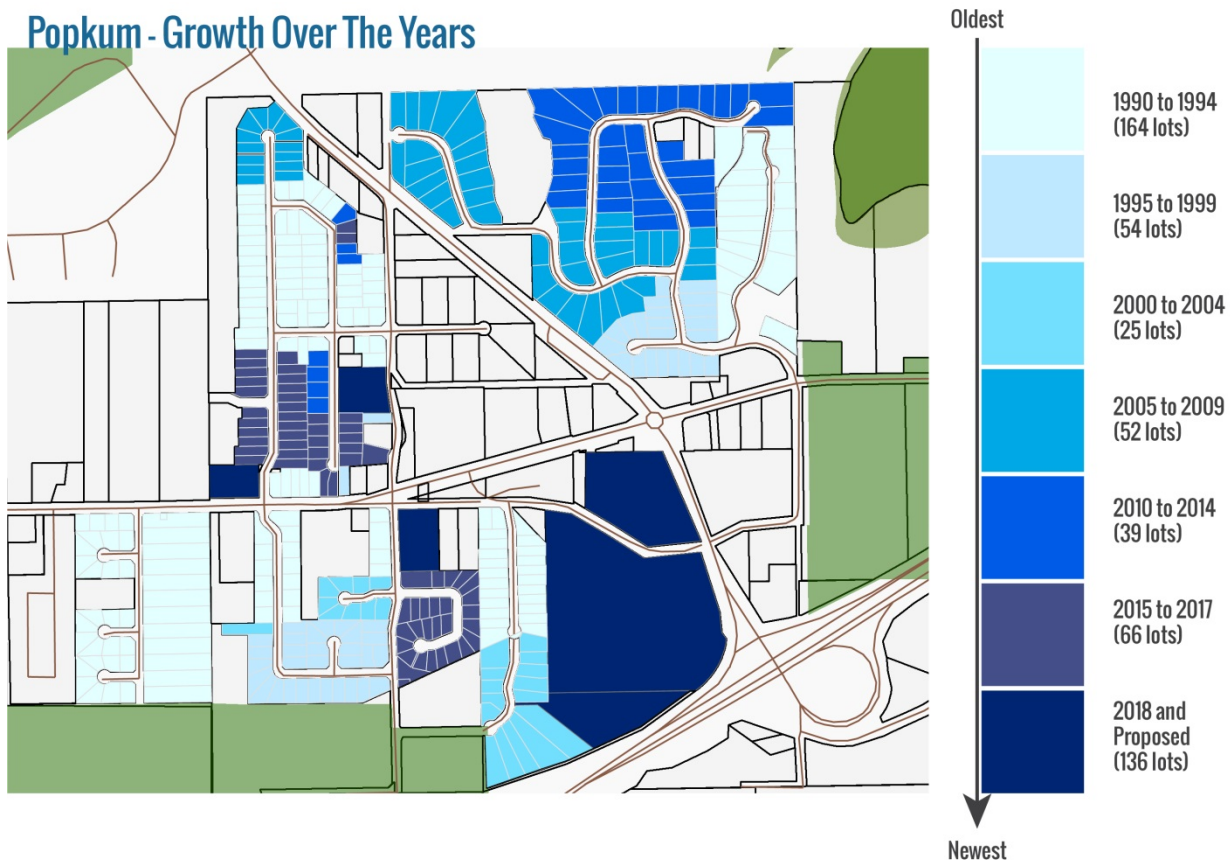
Popkum Subdivision Activity, 1989-2014



Subdivision activity resulting in new lots for single-family homes has occurred in spurts, with some years seeing a significant number of new lots (up to 34 per year in 1999 and 2010) and other years seeing no new lots.

Future development will continue in West Popkum, with undeveloped lands designated for expanded residential development, and looking further ahead to future development opportunities in the Bridal Falls uplands. Remaining lands in Popkum-Bridal Falls area are constrained by geohazards and/or the Agricultural Land Reserve (ALR). ALR lands are designated by the Agricultural Land Commission for agricultural uses only.

Popkum - Growth Over The Years



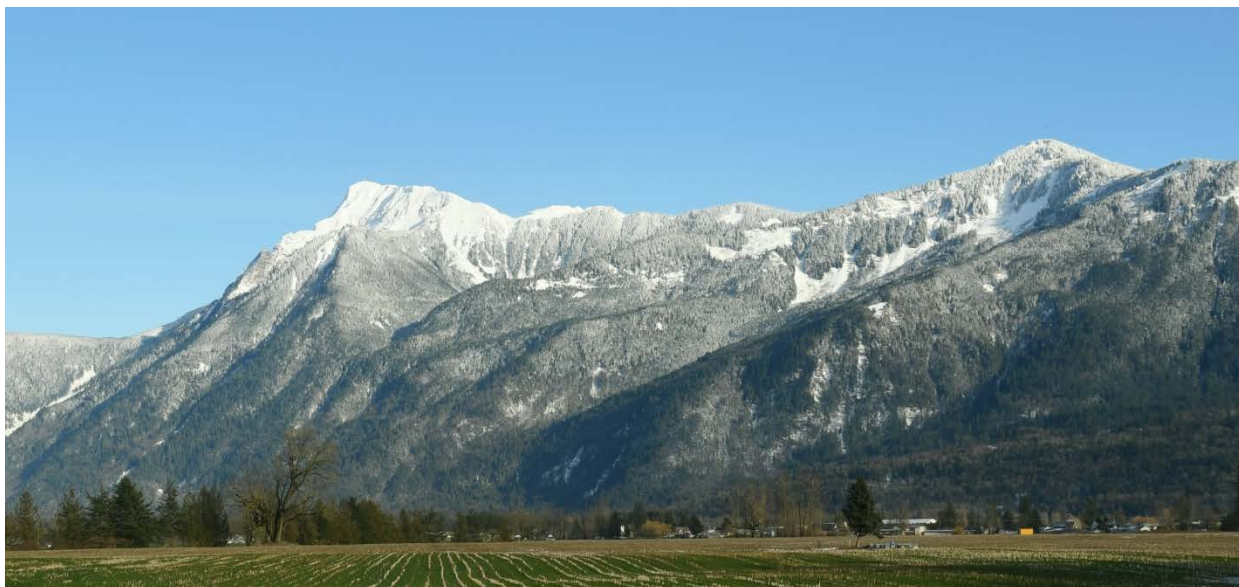
2.3 First Nations – Our Neighbours

Lands within the Popkum-Bridal Falls Plan area are located within Stó:lō territory. Neighbouring reserves includes the Cheam, Peters and Popkum Bands. The FVRD engages with affected first nations regarding any proposals to amend the Official Community Plan and those identified through the Province of BC's Consultation Database.

Consultation regarding land use matters may also be an avenue for increased co-operation, understanding, and dialogue between First Nations and the Regional District and a basis for good-neighbour relations and servicing agreements. The expansion of the Electoral Area "D" community water supply to service the Cheam reserve is a good example of positive relationship and collaboration which benefit all.

Documented and undocumented sites, traditional use and cultural heritage sites exist throughout the Plan area. Many of these sites are actively used today. The *S'ólh Téméxw Use Plan* Policy identifies the Cheam Range as sanctuary lands used for spiritual and traditional activities.

Ongoing dialogue, co-ordination and collaboration between our communities will be important for future success in ensuring these Plans are implemented and important cultural values are protected.



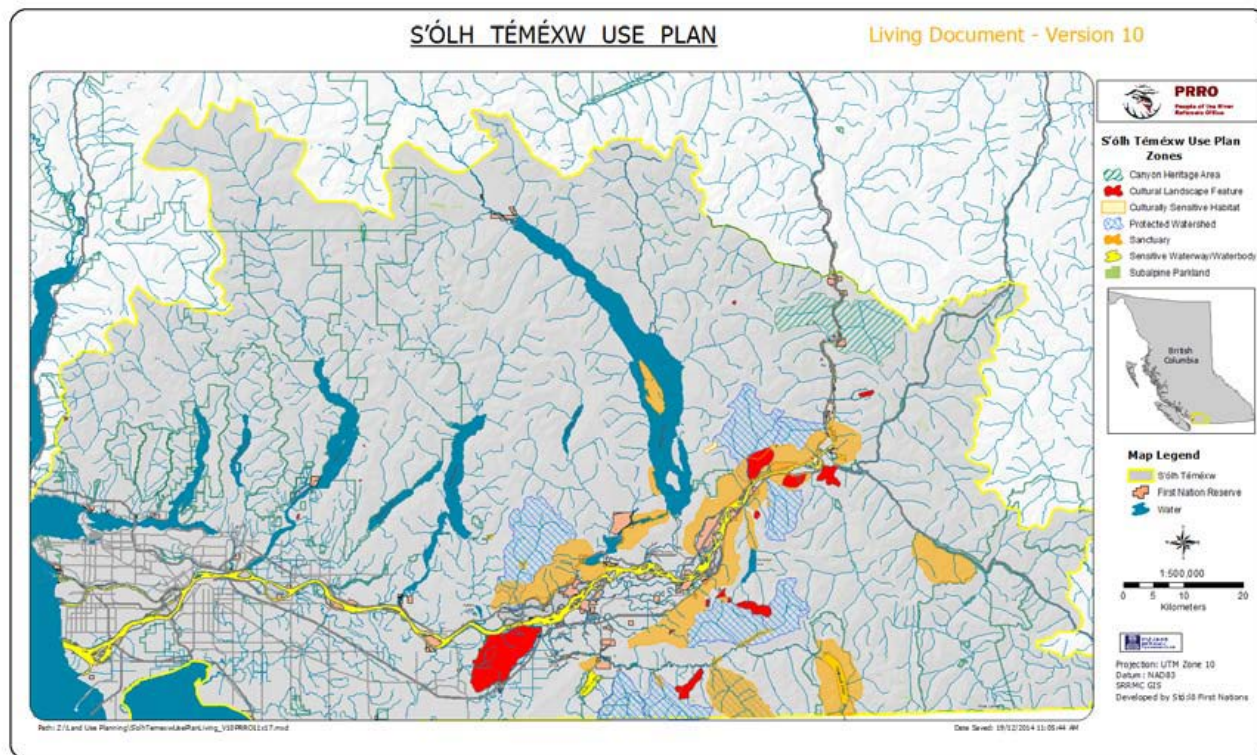
Lhílheqey (Mount Cheam)

In the Halq'eméylem language of the Stó:lō, Mount Cheam is named Lhílheqey, also referred to as "Mother Mountain" as she is the mother of "Seyowot", "Oyewor" and "Xomothiya", who are the smaller mountains below her. She was originally from here and she left her husband "Kwelxthew" (Mount Baker) and she returned home to the Fraser Valley. Xexá:ls changed her into a mountain and gave her the responsibility to watch over the people, the river and the salmon. (Source: Stó:lō Tourism and Tourism Chilliwack)

S'ólh Téméxw Use Plan Policy

First nations are advocating their interests and managing their territory through Land Use Codes or Land Use Plan documents. These strategic documents are important and influential to community development, particularly where shared interests such as improved water and sewer services, or crown land development is proposed.

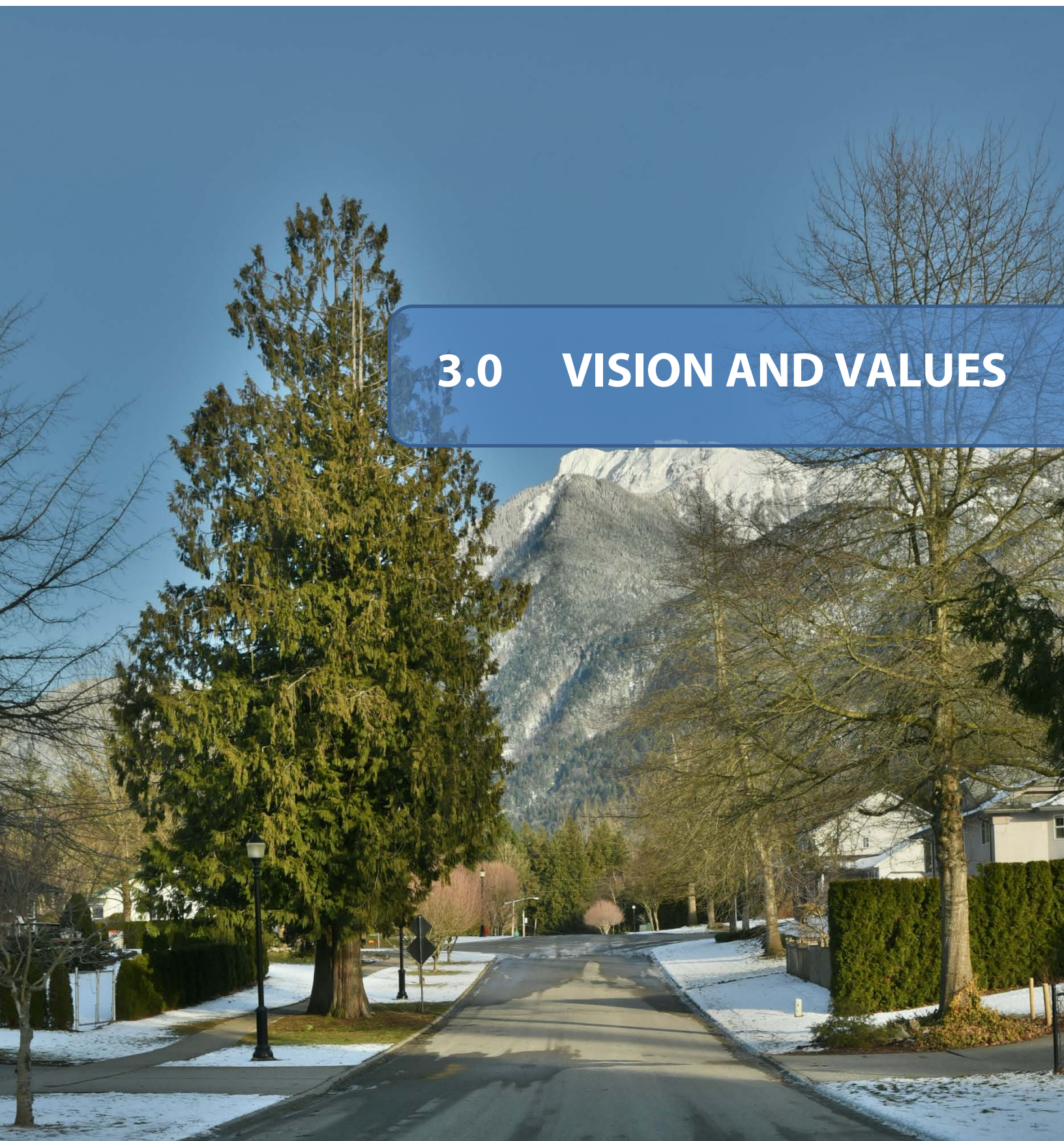
The Stó:lō have adopted the S'ólh Téméxw Use Plan Policy which provides details of the rich history of the their people. The plan identifies areas of cultural significance to Stó:lō for protection. The intention is not to prevent economic growth and development but to serve as high-level strategic planning tool that informs and balances the land use interests and needs of Stó:lō and others ranging from economic development to cultural heritage and environmental conservation and protection.



Policy

- 2.3.1 **FVRD Consultation with First Nations.** First Nations, including the Cheam First Nation, Popkum Band, Peters Band, Stó:lō Nation , Stó:lō Tribal Society and the Ts'elxweyeqw Tribe - shall be consulted respecting amendments to this Plan that may affect their interests in accordance with the requirements of the *Local Government Act* and the policies of the FVRD Board of Directors.
- 2.3.2 **First Nations consultation with the FVRD.** Cheam First Nation, Popkum Band, Peters Band, Stó:lō Nation, Stó:lō Tribal Society and the Ts'elxweyeqw Tribe are encouraged to consult with the Regional District on matters that may affect the land and residents of Electoral Area "D".
- 2.3.3 **Partnerships.** Opportunities for shared services and coordinated land use planning should be explored with neighbouring first nations.
- 2.3.4 **Ongoing dialogue.** The Regional District will welcome opportunities for dialogue and sharing knowledge of heritage with First Nations.
- 2.3.5 **Development approvals.** Land developers in areas of known or potential archaeological value should;
- i. contact first nations and the Archaeology Branch regarding archaeological values during development review processes;
 - ii. respect and avoid known and potential heritage and archaeological resources during land use planning processes where possible;
 - iii. obtain approvals pursuant to the *Heritage Conservation Act* where required.
 - iv. complete an archaeological impact assessment for zoning and community plan amendment applications.
- 2.3.6 **Archaeological sites mapping.** As opportunities arise, the Regional District will liaise with first nations regarding external funding opportunities to improve archaeological sites mapping.
- 2.3.7 **Artefacts.** Discovery of archaeological artefacts should be immediately reported to the Province of BC - Archaeology Branch and relevant first nations or others as appropriate.
- 2.3.8 **Landowner education and outreach.** Property owners proposing development in an area of known or potential archaeological resources should contact the Province of BC - Archaeology Branch for advice and guidance.

3.0 VISION AND VALUES



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3.1 Community Vision

What Does Popkum-Bridal Falls look like in the future?

The sense of space with room to move, trees and mountains, high quality homes and successful businesses are some of the many factors that make Popkum-Bridal Falls a desirable community. Informed by consultation, the Plan provides policies and context to guide land use decisions and point us in the right direction.

Vision Statement

Popkum-Bridal Falls is a growing and desirable community of distinct neighbourhoods. Each neighbourhood compliments and contributes to the community character as a whole. Our community is recognized for its active and rural lifestyles; parks, trails and nature; high quality development and services; central commercial nodes, and; surrounded by scenic mountains and well managed agricultural lands.



3.2 Plan Objectives

What are the big-picture goals?

The following aspirations explain a more detailed picture of the Plan's vision:

1. **Maintain and enhance high-quality neighbourhood character.** Ensure high quality commercial and residential development which respects the community character, privacy, natural and open spaces, and enhances the neighbourhood.
2. **Build up tourism recreation uses.** Support business opportunities for Bridal Falls which build upon and enhance existing tourist recreation infrastructure.
3. **Expanded parks, trails, and open spaces.** Provide outdoor recreation opportunities which connect residents and visitors to existing park and open space sites.
4. **Ensure safe development.** Avoid development in hazardous locations.
5. **High quality community services.** Facilitate development which is serviced by high quality, well managed services for drinking water, transportation networks and wastewater treatment.
6. **Preserve the environment.** Protect the natural environment by ensuring development is well managed and designed to work with the land to ensure vegetation, trees, and riparian areas which provide aquatic and terrestrial habitat is preserved.
7. **Protect agriculture.** Encourage a productive and viable agricultural community by providing flexible land use options and avoiding conflict with neighbouring land uses.

3.3 Regional Growth Strategy

How does Popkum-Bridal Falls fit within the Fraser Valley?

Future growth and change for Popkum-Bridal Falls is not only guided by the Official Community Plan (the Plan), but also by a larger regional plan that guides the overall development of the Fraser Valley. The Fraser Valley Regional District's (FVRD) "Choices for Our Future: Regional Growth Strategy" (RGS), adopted in 2004, outlines broad framework for managing regional growth and ensures the Fraser Valley remains a desirable place to live, work and play. Eight management goals are identified that will help manage growth in the FVRD, including:

Regional Growth Strategy (RGS) goals

- ✓ Increase Transportation Choice and Efficiency.
- ✓ Support and Enhance the Agricultural Sector.
- ✓ Manage Urban Land Responsibly.
- ✓ Develop a Network of Sustainable Communities.
- ✓ Protect the Natural Environment and Promote Environmental Stewardship.
- ✓ Protect and Manage Rural and Recreational Lands.
- ✓ Manage Water, Energy Resources and Waste Responsibly.

What is a Regional Growth Strategy?

The Regional Growth Strategy (RGS) is a plan that sets out a vision and goals to manage growth across the entire Fraser Valley.

Regional Context

The Fraser Valley is a fast-growing region. In fact, since 2011 the FVRD has grown 6.6% with a 2016 population of nearly 295,934¹. 89% of the Fraser Valley residents reside in the big three municipalities of Abbotsford, Chilliwack and Mission. Growth is planned to continue in these urban municipalities.

While the rest of the Fraser Valley grew significantly over five years, the City of Chilliwack experienced the fastest municipal growth in the region between 2011 and 2016 with a rate of 7.5%. Chilliwack's population is 83,788 (Census 2016). That growth spilled over to Electoral Area "D", the next-door neighbour community. While a smaller population overall, Electoral Area D within the same timeframe grew by a remarkable 13.6%, with a population increase of 183 people to a current population total of 1529 people.

Growth in Electoral Area D reflects development pressures in Chilliwack and the limited availability of low density housing in the municipality. Relatively large lots along with high quality homes, access to outdoor recreation, and the proximity to urban areas with schools, employment and highway access make Popkum a very desirable neighbourhood for individuals seeking a more suburban and rural lifestyle. Low density new development is no longer commonplace in municipal growth areas, with townhomes and small lot residential predominant as land scarcity and demand increases.

Looking forward, the Region and Electoral Area D is projected to continue growing. The projected population of Electoral Area "D" could rise from 1,529 people in 2016 to 1,967 people by 2031². This represents a 29% growth rate over 15 years. Market cycles make it difficult to predict growth, but overall the community will continue to expand along with the rest of the Fraser Valley.



FVRD in BC's Top 3

Population (2016)

1. **Metro Vancouver** 2,463,431
2. **Capital (Victoria)** 383,360
3. **FVRD** 295,934

FVRD leads BC growth

Population Growth (2011 - 2016)

1. **FVRD** 6.6%
2. **Metro Vancouver** 6.5%
3. **BC** 5.6%

¹ Statistics Canada, 2011 Census

² Urban Futures, Demographic, Housing & Employment Outlook for the Electoral Areas in the Fraser Valley Regional District, May 2015.



Who's in the FVRD?

- Six municipalities and eight electoral areas.
- Popkum-Bridal Falls is formally known as Electoral "D".
- 295,934 residents (2016 Census).

Consistency with the Regional Growth Strategy

The Popkum-Bridal Falls OCP is consistent with the FVRD growth strategy's vision in being a: *"network of vibrant, distinct, and sustainable communities that accept responsibly managed growth while being committed to protecting the land resource and the natural environment to ensure that a high quality of life is accessible to all."* (FVRD RGS 2004).

Section 445 of the *Local Government Act* requires that all bylaws adopted by the Regional District are consistent with the RGS. The table below outlines how the Plan meets the RGS goals.

Goal 1: Increase Transportation Choice and Efficiency	<p>Encourages the creation of trails within the West Popkum area to encourage walking and cycling as an alternative to motor vehicle travel.</p> <p>Supports use of public transportation service between Harrison, Kent, Popkum and Chilliwack.</p>
Goal 2: Support and Enhance the Agricultural Sector	<p>Promotes agricultural viability and strengthens farming by providing flexible uses that will strengthen the agricultural sector.</p>
Goal 3: Manage Urban Land Responsibly	<p>Not applicable.</p>
Goal 4: Develop a Network of Sustainable Communities	<p>Identifies compact commercial development areas to serve the local community with pedestrian connections.</p> <p>Supports flexible land uses consistent with rural and agricultural environments to encourage viability of local agriculture.</p>
Goal 5: Protect the Natural Environment and Promote Environmental Stewardship	<p>Encourages development which is serviced by high quality wastewater treatment facility owned and operated by the Regional District to protect environment.</p> <p>Recognizes the importance of the natural environment, preserves wildlife and fish habitats and water resources.</p> <p>Supports development which preserves critical habitat areas of Cheam Lake for park expansion.</p>

Goal 6: Protect & Manage Rural & Recreational Lands

Supports maintaining and enhancing rural character and local aesthetics.

Supports maintenance and expansion of outdoor recreational opportunities.

Addresses the challenges of geohazards from flooding, slope stability and creeks.

Goal 7: Achieve Sustainable Economic Development

Supports agri-tourism initiatives.

Supports tourism economy and development in Bridal Falls.

Goal 8: Manage Water, Energy Resources and Waste Responsibly

Addresses water and waste servicing and other issues.

Regional Growth Strategy Update

The FVRD RGS is currently being updated. Following the completion of the updated RGS, this Regional Context Statement will be amended to reflect the alignment with the new RGS.

4.0 GENERAL LAND USE POLICIES



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4.1 Permitted Uses & Parcel Sizes

Understanding OCP Designation Policies

OCP designations facilitate effective planning by providing a basis for avoiding land use conflicts and predicting density levels, servicing needs and environmental impacts. Permitted use considerations include:

- suitability of the land;
- service levels;
- hazards, access;
- community planning objectives;
- regional growth goals; and
- environmental carrying capacity and thresholds.

Specific conditions of use may apply, as prescribed in designations or other parts of this Plan or in zoning bylaws and in other regulations. Use Policies outlined in each designation are particularly relevant to the Regional Board's consideration of proposals to establish, or temporarily permit, new uses not currently permitted by zoning.

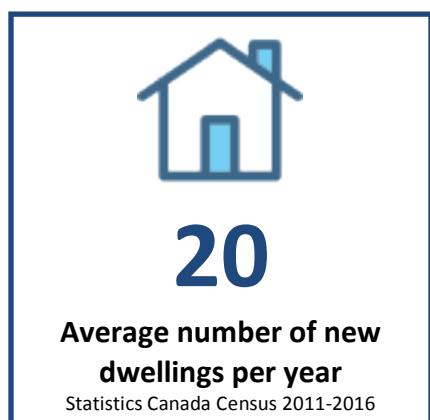
4.2 Housing Needs and Residential Uses

Popkum-Bridal Falls Housing Expectations

The *Local Government Act* requires that an official community plan include statements and map designations with the approximate location, amount, type and density of residential development required to meet anticipated housing needs over a period of at least five years. The sections below utilize past census and development approval data to estimate future housing needs.

The Regional Growth Strategy (RGS) for the Fraser Valley Regional District forecasts a 53% increase in population by 2041 from 2016 levels. RGS policies direct future development to existing urban areas and other locations within municipal boundaries to achieve complete and compact communities. The RGS objective is to preserve rural lands, ensuring stable and modest growth over the next twenty years.¹

Popkum-Bridal Falls development trends are on track to meet the RGS modest growth expectations.



According to Statistics Canada, the total number of households and private dwellings occupied by usual residents in the Plan area increased from 494 in 2011 to 596 in 2016. That is an increase of 102 new dwellings in 5 years, an average of 20 new dwellings per year.

This average is generally supported by **FVRD building permit data** which indicates an average of **13 new single family homes were built per year** from 2012-2016.

Subdivision data is challenging to aggregate and quantify as the authority for subdivision approval is held by the Ministry of Transportation and Infrastructure (MOTI). Furthermore, subdivision is not necessarily incremental. Meaning subdivision approval for a development could result in 30 new lots, however market demand may not result in construction on those lots for several years. This was observed with the Rose Garden subdivision in the mid to late 2000's. Development approval data and Statistics Canada census information are not strictly consistent. However, they show a history of modest annual demand for new residential units each year.

Overall, projected growth in the rural areas is modest and consistent with historical growth rates, particularly when compared to the fast growing urban areas of the region like Chilliwack and Abbotsford. Statistics Canada data indicates that between 2011 and 2016, the average annual population increase in Electoral Area "D" (excluding Indian Reserves) was approximately thirty-seven persons per year. This represents approximately 0.5% of the regional growth rate from 2011 to 2016.

¹ Fraser Valley Regional District. *Choices for our Future: Regional Growth Strategy*. 2004. p. 30.

Housing Needs

Development will meet housing needs for next 5 years and beyond.

The Plan will meet anticipated housing needs primarily through development of new dwellings outside of the ALR on existing vacant parcels and subdivision under existing zoned or planned densities.



Statistics Canada 2016 census data indicates that on average 37 new residents per year moved to Electoral Area "D". Each household size is 2.8 persons. While some household sizes are smaller and larger than 2.8 persons, and given historic dwelling increases of 20 homes per year. Therefore **13 to 20 new homes are required each year to accommodate growth.**

Urban Futures modeled population² growth for Electoral Area "D" to reach 1,967 residents by 2031 or approximately 32 persons per year. This figure is consistent with historic growth.

Development Potential

Overall development potential in West Popkum and portions of East Popkum could provide a range of 270 to 500 additional new lots for single family development on SUBURBAN RESIDENTIAL designated lands. The range reflects lot yield uncertainties from road dedication, servicing levels and the need for land assembly and redevelopment of some larger lot parcels.

These SUBURBAN RESIDENTIAL lands provide for housing needs over the next 5 years and beyond. Given a minimum development potential of 270 new lots for single family development, and an average of 20 new single-family dwellings per year (Statistics Canada 2016). The Plan provides a **minimum of 14 years of housing growth.** Future opportunities to reevaluate density in the SUBURBAN RESIDENTIAL designated lands could increase development in Popkum, particularly the northwest portion of West Popkum. This area is discussed further in Section 5.0 and 6.0.

Looking beyond Popkum build out, additional lands in the Bridal Falls upland area located along the shared jurisdictional boundary with the City of Chilliwack provide promising options for longer term development and growth. However these lands are constrained by lack of services, access, environmentally sensitive areas and some portions of the hillside are subject to a geohazard. This area is discussed further in Section 5.0.

² Urban Futures (2015) *Demographic, Housing, and Employment Profile and Outlook – Electoral Areas in the Fraser Valley Regional District.*

Assessing true subdivision and development potential is challenging, as each development must be determined on a site-specific basis. Also, uncertainties from the housing market fluctuations create challenges in predicting the rate of growth over time. Nevertheless, it is reasonable to conclude that planned development will satisfy the primary housing needs over the expected life of this Plan.

Policy

- 4.2.1 **Housing needs provided in West Popkum.** Anticipated housing needs in Popkum-Bridal Falls will be addressed through development and redevelopment of SUBURBAN RESIDENTIAL lands.
- 4.2.2 **Second dwellings.** Second dwellings such as garden suites, carriage houses, secondary suites and second residences may be considered by the Regional Board in areas designated AGRICULTURAL, LIMITED USE, RURAL, and SUBURBAN RESIDENTIAL subject to zoning amendment. However, in AGRICULTURAL areas farm use is a priority and residential uses are limited under the regulations and policies of the Agricultural Land Commission. Evaluation may include, and the following issues:
- a. land use and zoning regulations;
 - b. servicing requirements and feasibility;
 - c. location of secondary housing; and,
 - d. siting considerations.
- 4.2.3 **Caregiver use.** Accessory Family Residential Use zoning conditions should be reviewed by the Regional Board to allow the caregiver to reside in the accessory residence.
- 4.2.4 **Development land evaluation.** Residential development will be directed away from agricultural lands, lands susceptible to hazards, lands with severe limitations for ground-based disposal of sewage, or connection to community sewage system, and lands with building or road foundation limitations unless adequate measures are taken to mitigate associated issues.

4.3 Industrial Uses

Section 473 of the *Local Government Act* requires that official community plans identify the approximate location, amount and type of present and proposed industrial land uses. There is one parcel zoned for industrial use in the Plan area. The long established wood processing site in Bridal Falls. The subject parcel is not zoned for industrial use, but does permit the industrial use by Land Use Contract agreed to in 1978.

In 2014, the Province of British Columbia³ passed legislation directing all land use contracts to be automatically terminated, and effectively discharged from the title by June 30, 2024. Therefore the LIMITED USE designation policy provides support for a future zoning amendment to facilitate the ongoing forest product processing use for this parcel only.



The Plan does not identify lands for future industrial development, as the services necessary to support industrial development are generally not available in the Plan area. Industrial lands are typically located in urban areas such as nearby Chilliwack, where adequate services and population centres are located. Accordingly, applications for the designation of new industrial lands will be considered on an individual basis with careful consideration of community impacts.

Industrial uses in the Electoral Areas generally relate to resource sector activities such as aggregate or forestry which occur on or near Crown land but can impact neighbouring residential, agricultural and institutional uses. These resource industries provide local employment and economic investment. Furthermore, these uses can be temporary or seasonal. Balancing the impacts and benefits of industrial development will be a consideration of the Regional Board in commenting on senior government referrals and in decisions on land use activities including Temporary Use Permits Section 12.

Policy

- 4.5.1 The Regional Board will consider proposals to rezone or establish community plan designations for industrial uses on an individual basis, with consideration to; neighbourhood impacts including noise, traffic, sight, sound and odour.
- 4.5.2 The Regional Board will consider rezoning of 54370 Bridal Falls Road to an industrial use consistent with the existing forest products processing operation permitted under Land Use Contract, as outlined in the LIMITED USE designation policy.

³ Miscellaneous Statutes Act, Bill 17, 2014

4.4 Community Care Facilities

Section 20 of the *Community Care and Assisted Living Act* states that a local government bylaw does not apply to licensed Community Care Facilities if the bylaw would:

- limit the number of persons in care who may be accepted or accommodated at the community care facility;
- limit the types of care that may be provided to persons in care at the community care facility; or
- apply to the community care facility only because:
 - it is not being used as a single-family dwelling house, or
 - it operates as a community care facility, a charitable enterprise or a commercial venture.

4.5 Lawfully Non-Conforming Use & Siting

Legally established existing land uses which are not permitted uses in the zone within which they are located, are under Division 14 of the *Local Government Act*. Most lawfully non-conforming uses are associated with development constructed before zoning bylaws were established. In many cases, the existing zone to establish conformity is not an acceptable option, although continuance of the use under certain restrictions may be acceptable. The siting and dimensions of buildings may also be lawfully non-conforming under the *Local Government Act*.

Policy

- 4.6.1 Where the continuance of a lawfully non-conforming land use would not be hazardous or conflict with surrounding land uses - and where the applicant indicates a desire to negotiate a covenant with the Regional Board limiting future uses, buildings and structures to those legally established at present - the Board may rezone the property to reflect the actual use.
- 4.6.2 The Regional Board may consider the issuance of a development variance permit to varying siting regulations to address and render the siting or dimensions of a building or structure conforming.

4.6 Transportation and Utility Corridors

Popkum-Bridal Falls is a strategic corridor for numerous national and provincial utility and transportation corridors. These corridors are critical to Canadians for goods movement, energy products and transportation. As shown on Map 4 – Utility and Transportation Network, the narrow passage of land between the Fraser River to the north and the slopes of Mount Cheam to the south, provides a gap of 2.5 kilometres which seven corridors are located, including;

- Highway No.1
- Highway No.9
- Canadian National Railway
- BC Hydro 500 KV powerline corridor – two corridors
- Enbridge natural gas pipeline and compressor station
- Trans Mountain oil pipeline and pressure station

Popkum-Bridal Falls is uniquely located in the path of the seven corridors, and each one creates a footprint and impact area whether it be for maintenance or upgrade activities, noise, operations or even just visual obstruction. These corridors have existed in some cases since the early 1900's, and in many ways the present-day community grew around the corridors.

Nonetheless, in recognition that additional capacity in transportation and utility corridors and facilities will be required to serve future growth areas of the Lower Mainland - and that the construction of new transportation and utility corridors has major impacts on the land base, growth potential and economic well-being of the Region - in May, 2001, the Regional Board adopted the *Transportation and Utility Corridors of Regional Significance Policy*. The policies of this plan supplement the *Transportation and Utility Corridors of Regional Significance* for Electoral Area "D".

In addition to the above noted corridor policy, the Regional Board has adopted two additional policies of note; *Community Benefit Contribution policy*; and, the *Crown-Crown Interface policy* (applicable to Crown lands). Respectively, these policies provide a framework for ensuring significant projects provide a community benefit to balance the development impacts; and, considerations to manage Crown land use impacts to neighbouring electoral area communities.



BC Hydro provides an annual community benefit contribution to the FVRD for local initiatives such as parks & infrastructure upgrades.

Policy

- 4.6.1 **Studies required.** Any proposed new transportation or utility corridor of regional significance will be regarded as a “Corridor Under Study”. Regional District support for such proposals will be contingent upon submission of studies to demonstrate that:
- a. the proposal meets the land use, environmental and air quality policies of the Regional Board as expressed in the Regional Growth Strategy, Fraser Valley Air Quality Plan, this Official Community Plan, and other Board policies;
 - b. the proposal minimizes the disruption to existing communities and settlement areas, the consumption of agricultural land, the impact on the natural environment, and provides for safe and unrestricted movement of agricultural vehicles and goods in agricultural areas;
 - c. the proposal does not restrict the development of adjacent land areas which are designated or identified for future growth and development, or where the proposal does impact such lands, adequate compensation is provided to the local government in consideration of long range impacts on financial plans, capital expenditure programs, and foregone taxation opportunities;
 - d. the proposal does not adversely affect the drainage or productivity of agricultural land;
 - e. the transportation and utility service demand projections are deemed credible by the Board; and,
 - f. the proposal represents a variety of benefits to communities in the region that are traversed by the proposal including providing access to service not previously available to areas of the region and enjoys broad-based support from the affected communities.
- 4.6.2 **Use existing infrastructure and corridors first.** Telecommunications, transportation and utility proposals of regional significance that satisfy the criteria should be designated to make use of existing transportation and utility right-of-way's wherever possible.
- 4.6.3 **Mitigate impacts.** New or expanded major utility corridors and infrastructure (ie. highway upgrades, powerline replacement or expansion) should mitigate impacts to developed residential and commercial areas, in accordance with the *Crown-Community Interface policy*.
- 4.6.4 **Provide a community benefit.** Transportation and utility proposals of regional, provincial or national significance should provide community benefits which balance the impacts of development to the community with the scale and size of the project, in accordance with the *Community Benefit Contribution policy*.

4.7 Crown Lands

The Plan area consists of nearly 2500 hectares (6,000 acres) of Crown land, primarily located on the Bridal Falls slopes and Fraser River foreshore. The iconic Mount Cheam is a particularly important part of the local crown land base.

Crown land serves multiple roles in Popkum-Bridal Falls, providing informal outdoor recreation areas, views, rural character, environmental benefits, and more. These are also working lands for the economic benefit of the Province for resources or crown lease. Balancing these interests and the management of Crown land is a multi-jurisdictional responsibility of the following groups; the Ministry of Forests, Lands, & Natural Resource Operations, Ministry of Energy & Mines, Ministry of Environment; Crown land licensees and users; private property owners; and others.

Referrals to the FVRD provide an opportunity for information sharing and co-ordination of proposals by provincial agencies, Crown corporations, resource industries, utility companies, and lease holders. Proposals can be diverse ranging from resource extraction to adventure tourism. Accordingly, FVRD interests can vary from visual concerns, geohazard stability, outdoor recreation access or development related impacts to neighbouring settlement areas and more.

Bridal Falls is an important tourism recreation corridor that attracts visitors for paragliding, hiking, camping and more. Resource extraction proposals may detract from the tourism uses of Crown land and impair the value of these important outdoor recreation uses. Balancing the economic contribution of resource extraction and tourism recreation should form part of the proposal review. In some instances mitigation and operational approaches can mitigate impacts; however these are not always possible. Other opportunities to balance impacts may be possible through the FVRD *Community Benefit Contribution Policy*, as has occurred with the BC Hydro Wahleach facility or the Innergex donated Cascade Falls Suspension Bridge.



Bridal Falls Forest Service Road
Credit: Aceshigh, ClubTread

Given the importance of Crown lands, the Plan policies provide guidance on the land uses and considerations for development on Crown land. While local government regulations are generally not binding on federal and provincial governments, provisions of the Plan should be considered by those bodies as an expression of Regional Board objectives and a basis for co-operation between different levels of government.

Should a government ministry, agency or other organization propose a development or uses which are contrary to the policies of this Plan, then the Responsible Authorities are encouraged to make application for Plan amendment as outlined in this Plan. Not only would the application allow the Board to express its interest in the proposed development and provide for public input at a local level, but this procedure will enable the Regional Board to provide complimentary policies to manage or avoid conflicting land uses.

In addition to the land use policies provided in the Plan and zoning bylaw, the FVRD has adopted two additional policies which are relevant to Crown land use:

1. *Crown – Community Interface policy*; to ensure Crown developments consider and manage land use impacts to neighbouring electoral area communities; and,
2. *Community Benefit Contribution Policy*; provides a framework to ensure significant projects provide a community benefit to balance the development impacts on nearby communities.



Cascade Falls Regional Park suspension bridge

Donated to the FVRD by Innergex Renewable Energy Inc. as a community benefit. Innergex developed several run-of-river power projects in the area.

Policy

- 4.7.1 **Ensure compliance with FVRD requirements.** Provincial and Federal governments are encouraged to use Crown land in a manner that conforms to Regional District bylaws, policies, and regulations.
- 4.7.2 **Outdoor recreation significance.** Crown land uses which provides for low impact outdoor recreation activities, should be recognized as important economic contributors to the Bridal Falls tourist recreation corridor.
- 4.7.3 **Obtain FVRD approvals.** Where a government ministry, agency or other organization proposes a land use which is contrary to the policies of this Plan, the Responsible Authorities are encouraged to make application for Plan amendment as outlined in this Plan.
- 4.7.4 **Minimize and mitigate impacts.** Transient and temporary uses of Crown land should be designed to minimize and mitigate impacts to the local community, particularly where the use generates visual impacts, noise, waste, or traffic disturbances.
- 4.7.5 **Provide a community benefit.** Crown land of regional, provincial or national significance should provide community benefits which balance the impacts of development to the local community with the scale and size of the project, in accordance with the *Community Benefit Contribution* policy.

5.0 LAND USE DESIGNATIONS



5.0 Land Use Designations

Identifies general land uses

The Plan provides land use designations to identify preferred locations of broad land uses. The residential, agricultural, resource and commercial land uses are described in this section and shown on Schedule 2 – Land Use Designations. Land Use designations do not regulate land use and density on individual lots that function is served by the Regional District's Zoning Bylaw. The policies contained in this section describe the long term land use options that will guide the Regional District in permitting, zoning amendments, and other regulatory bylaws.

Popkum-Bridal Falls is divided into seven land use designations.

AGRICULTURAL (AG)

Land within the Agricultural Land Reserve or best suited to agricultural activities.

CONSERVATION (C)

Existing or potential parks, stream channels, recreation reserves or important fish and wildlife habitat.

FOREST (F)

Predominantly crown lands within a working forest and/or resource extraction area.

HIGHWAY TOURIST RECREATION COMMERCIAL (HTRC)

Lands intended or existing for a variety of commercial uses oriented to the local services, services/retail for traveling public, and tourism commercial uses.

LIMITED (LU)

Predominantly large parcels with some private ownership that feature significant hazards, access limitations and/or limitations to on-site servicing.

RURAL (R)

Larger parcels of land located outside the suburban residential and tourist recreation commercial core areas, with on-site services and best suited for low density development, serves as a transition between close proximity conservation, agricultural or limited use areas.

SUBURBAN RESIDENTIAL (SR)

Lands relatively free of hazards and potentially suitable for suburban development with the highest level of community services and density in the Plan area, including approved community water, onsite septic or approved community sewer, street lighting, storm drainage.

Understanding the Land Use Designations

Within these designations, the policies of the Regional Board policy are contained under the four following sub-headings:

- **General policies**, outline the local and regional development policies in a particular designation
- **Designation policies**, state the type of land placed in a particular designation and the conditions for extending existing areas or creating new areas in the designation
- **Use policies**, list the uses that may be permitted on land within a designation and in some cases, state the standards under which a given permitted land use must be developed
- **Subdivision policies**, specify the minimum lot size permitted within a designation and other conditions of subdivision



5.1 AGRICULTURAL

Situated between the Fraser River and the north slope of Mount Cheam, agricultural lands in Electoral Area “D” are unique in the Fraser Valley. They are located predominantly outside the Fraser River floodplain, and constrained by soil quality, drainage, and sunlight. The ancient Mt. Cheam land slide event over 5000 years ago¹ deposited rock avalanche material, creating stony soils and challenging drainage conditions on today’s agricultural parcels.

Nevertheless agricultural lands are productive in Popkum-Bridal Falls. With over 493 hectares of land within the Agricultural Land Reserve (ALR), the ALR represents 24% of private lands of the Popkum-Bridal Falls land base. While ALR lands in Popkum-Bridal Falls only represent less than 1% of the regional ALR inventory, they ALR provide an important economic component to the community. Active farming occurs on 60% of ALR lands, and Popkum-Bridal Falls ranks 5th in the FVRD for utilization of farm land, just behind the City of Abbotsford with 67% utilization.²

The ALR shapes the rural character and establishes a boundary around the existing Popkum neighbourhood core along the east and south edges. The Plan designates Agricultural Land Reserve (ALR) lands in Electoral Area “D” are AGRICULTURAL.

In recognition of the challenging soils, drainage, and sunlight conditions in Electoral Area “D”, the AGRICULTURAL designation policies support flexible options that are supportive of farming

¹ Orwin JF, Clague JJ, Gerath RF, (2004). The Cheam rock avalanche, Fraser Valley, British Columbia, Canada. Landslides 1:289 -298

² Agricultural Land Use Inventory - Fraser Valley Regional District, Ministry of Agriculture – Province of British Columbia, 2011-2013.

and farm compatible uses, such as agri-tourism while still providing protection of farm land for agriculture.

The *Agricultural Land Commission Act*, regulations and Orders of the Commission take precedence on matters of land use and subdivision in the ALR. The Act and regulations generally prohibit or restrict non-farm use and subdivision of ALR lands, unless otherwise permitted or exempted. The Regional Board assists in the administration of the ALR land by commenting on applications for subdivision, non-farm use, inclusion of land in the ALR, and exclusion of land from the ALR. The policies established in this Plan will provide guidance for future Regional Board comments on these applications.

Policy

- 5.1.1 Agricultural lands in Popkum-Bridal Falls shall be preserved by preventing the subdivision of farms, supporting AGRICULTURAL land uses, minimize conflicts between agriculture and other land uses, and avoiding the development of rural residential subdivisions in the Agricultural Land Reserve.
- 5.1.2 Agricultural activities in the Plan area should be conducted in an environmentally sensitive and sustainable manner that adhere to guidelines as provided by the Ministry of Agriculture's Environmental Farm Plan Program and other best practices.
- 5.1.3 The Regional Board values agriculture and its contribution to the local economy, availability of local food products and the rural character of Popkum-Bridal Falls.
- 5.1.4 Applications for the exclusion of Agricultural Land Reserve (ALR) lands in the West Popkum area designated AGRICULTURAL shall be given consideration in conjunction with the West Popkum Local Area policies in Section 6.0.
- 5.1.5 The Regional Board supports the efficient and clustered siting and size of residential uses in order to provide for farming uses.
- 5.1.6 The Regional Board will work with the Ministry of Agriculture and the Agricultural Land Commission to provide for a broader range of agricultural opportunities and uses which:
 - a. are supplementary and ancillary to farm use;
 - b. support value-added activities that improve farm viability;
 - c. are consistent with the environmental policies of this Plan; and
 - d. will not jeopardize the long-term productivity of farmland.

Designation Policies

- 5.1.7 The Plan designates all land within the Agricultural Land Reserve (ALR) as AGRICULTURAL.
- 5.1.8 AGRICULTURAL areas may be extended or created through Plan amendment where additional areas suited to farm production are identified through an application process or pursuant to the *Agricultural Land Commission Act* and the Agricultural Land Reserve Use, Subdivision and Procedure Regulation.
- 5.1.9 Where land presently within the Agricultural Land Reserve is, pursuant to the *Agricultural Land Commission Act*, excluded from the Agricultural Land Reserve; or, found to be exempted under Section 23(1) of the *Agricultural Land Commission Act*; the provisions of the Official Community Plan shall be binding and the lands shall remain in AGRICULTURAL designation until the land is re-designated by bylaw amendment.

Use Policies

- 5.1.10 AGRICULTURAL areas shall be used for only:
- a. Farm use;
 - b. Conservation use, including park and park reserve;
 - c. Park and park reserve use;
 - d. Single family residential use;
 - e. Natural campground use in accordance with the Agricultural Land Reserve Use, Subdivision and Procedure Regulation;
 - f. Agri-tourism use in accordance with the Agricultural Land Reserve Use, Subdivision and Procedure Regulation;
 - g. Associated rural residential use; and
 - h. Accessory farm employee dwelling.
- 5.1.11 AGRICULTURAL areas in the Agricultural Land Reserve are subject to the provisions of the *Agricultural Land Commission Act* and the regulations and the orders of the Agricultural Land Commission.
- 5.1.12 The Regional Board may support zoning amendment applications for non-farm uses as approved by the Agricultural Land Commission provided the property remains designated as AGRICULTURAL.
- 5.1.13 The removal of soil or placing of fill on land in AGRICULTURAL areas shall be undertaken in accordance with the Agricultural Land Reserve Use, Subdivision and Procedure Regulation and the bylaws of the Fraser Valley Regional District.

- 5.1.14 Agri-tourism uses may be supported provided that parking and servicing needs can be met on-site, where required a Special Events License is obtained, and the use meets the requirements of the *Agricultural Land Reserve Use, Subdivision and Procedures Regulation*.
- 5.1.15 The Regional Board may consider zoning amendment applications for agri-tourism accommodation use which:
- a. provide on-site water and sewage disposal;
 - b. minimize impact on adjacent land uses and character of the existing area;
 - c. avoid conflict with adjacent agricultural uses;
 - d. minimize area of development through the clustering of buildings, shared driveway and surfaced areas, and efficient siting of on-site services.
- 5.1.16 Accessory secondary dwellings may be considered by the Regional Board in the AGRICULTURAL designated lands, subject to the regulations of the Agricultural Land Commission.
- 5.1.17 Notwithstanding Section 5.1.9, where a land use is proposed but not permitted within the AGRICULTURAL designation, the applicable zoning bylaw or the regulations of the Agricultural Land Commission, the Regional Board may issue a Temporary Use Permit provided the following are all met:
- a. the Agricultural Land Commission approves the non-farm use;
 - b. the use is temporary and compatible with surrounding uses;
 - c. the use will not interfere with long term agricultural capabilities on the parcel and surrounding area;
 - d. no extension of services or public infrastructure is required;
 - e. on-site services and infrastructure are provided to support the use;
 - f. the use is a small-scale in nature; and
 - g. a public meeting is held if required by the Regional Board.
- 5.1.18 The Regional Board may prefer to consider a Temporary Use Permit to permit a natural campground use prior to site-specific rezoning.
- 5.1.19 The Regional Board may consider site-specific zoning amendments to permit seasonal farm labour accommodation on agricultural parcels where all of the following conditions apply:
- a. the land is within the Agricultural Land Reserve;
 - b. the parcel is classified as 'farm' under the *British Columbia Assessment Act*; and
 - c. the seasonal farm labour accommodation use is incidental to and necessary for a farm operation on the same farm unit.

Subdivision Policies

- 5.1.20 Land in AGRICULTURAL areas within the Agricultural Land Reserve shall be subdivided only in accordance with the provisions of the Agricultural Land Commission Act, regulations thereto, and orders of the Commission.
- 5.1.21 New parcels created by subdivision within the AGRICULTURAL areas shall be configured to maximize agricultural sustainability and minimize potential conflicts between farm and non-farm uses.
- 5.1.22 The Regional Board will support applications for subdivision in the AGRICULTURAL areas which reconfigure or consolidate existing parcels to create a more efficient agricultural operation, and result in no increase of the number of parcels.
- 5.1.23 Notwithstanding minimum parcel size and where approved by the Agricultural Land Commission, the AGRICULTURAL lands located to the adjacent south of the Cheam Wetlands Regional Park, from the park boundary to the toe of the slope are strategic to the protection and enhancement of the Park, and may be considered for reconfiguration or consolidation when part of a comprehensive subdivision proposal to dedicate lands to the park.
- 5.1.24 Land in AGRICULTURAL areas shall be subdivided only in accordance with the standards of the Responsible Authorities, except that the parcel size shall be:
- a. not less than eight (8) hectares for lands in a floodplain; or,
 - b. not less than four (4) hectares for lands outside of a floodplain.
- It is noted that the minimum parcel sizes above may not be achievable in the Agricultural Land Reserve without approval by the Agricultural Land Commission.
- 5.1.25 Notwithstanding that the Agricultural Land Commission may have indicated approval or no objection to this Plan, the Commission is obliged to consider individual applications on their own merit under the mandate of the *Agricultural Land Commission Act* and is not obliged to approve applications that comply or, alternatively, refuse applications that do not comply with the minimum lot size or densities of this plan.



5.2 CONSERVATION

The natural setting of Popkum-Bridal Falls provides lands and landscapes of high ecological and recreational value. Situated below the lower slopes of Mount Cheam and alongside the Fraser River, both considered significant natural features of the Fraser Valley. The CONSERVATION designation is a balance of local recreation and conservation needs with regionally significant values.

The CONSERVATION area designation identifies publicly-owned properties that are formally designated parks, as well as Crown lands of significance along the Fraser River used for recreation and conservation purposes. The designation also includes regional and provincial parks.

Additional policies relevant to park planning, management and development are outlined in Section 8.0 of the Official Community Plan.

General Policies

- 5.2.1 The CONSERVATION AREA designation is established to:
- identify designated and proposed local, regional or Provincial parks or protected areas;

- b. provide walking and cycling access to park and recreation areas, excluding ecological reserves, for the enjoyment of the natural environment;
- c. conserve environmental assets including unique natural features, distinctive landscapes and areas of high recreational value; and,
- d. recognize environmental values and management requirements of Crown riparian and littoral areas.

Designation Policies

5.2.2 This Plan designates lands with some or all of the following characteristics as CONSERVATION AREA:

- a. areas owned or under long-term lease by a Responsible Authority for public recreation use or regional or local significance including regional parks, community parks, recreation reserves and areas with recreational potential, and land of significant recreational potential which is suitable to reserve for future public and park use;
- b. areas that may have geological or flood hazards;
- c. areas of important wildlife or environmental value, including habitat;
- d. land with significant recreation potential which may be suitable for future park use; and,
- e. riparian and littoral areas under Crown ownership.

5.2.3 CONSERVATION AREAS may be extended or created through Plan amendment provided that additional lands that meet the required designations policies above are identified.

Use Policies

5.2.4 CONSERVATION AREAS shall be used only for:

- a. Conservation use;
- b. Park and park reserve;
- c. Recreation use, in accordance with the conservation objectives and management policies of the Responsible Authority; and,
- d. Farm use provided that the lands are located within the Agricultural Land Reserve.

5.2.5 Notwithstanding Section 5.2.2, CONSERVATION AREAS may also be used for:

- a. channel maintenance for the purpose of community flood protection, including sand and gravel removal and necessary ancillary activities subject to any necessary approvals from the Regional District and the Responsible Authorities; and,

- b. hazard land management uses, including works, facilities and activities to provide protection from and to manage flooding, snow avalanche, rock fall, landslides, and other natural hazards.

Subdivision Policies

- 5.2.6 Land in the CONSERVATION AREA shall only be subdivided under circumstances where subdivision is required in the interests of responsible park or environmental management.



Mount Cheam – from Bridal Falls Forest Service Road

Photo: Jon Hall, jonhall.com

5.3 FOREST (F)

The FOREST designation recognizes that extensive areas of Crown land within the Plan area are part of the Province's 'working forest'. These lands are managed by Province of British Columbia. A range of forestry, resource and recreation uses are expected to continue in the area, including logging, reforestation, silviculture, mining activities and adventure tourism uses.

FOREST lands include areas with steep slopes and streams located above settlement areas. Forestry and resource activities in these areas may initiate or exacerbate hazards on Crown land which can impact private lands and infrastructure below. Special consideration should be given where forest and resource uses may have an impact on settlement and habitat areas. In these situations, the Regional Board will recommend to the Provincial agencies having jurisdiction that habitat assessments, geotechnical and hydrological studies and mitigation works be undertaken in association with any plans for development.

In addition to a working forest, Crown lands in the Plan area provide access to the backcountry for recreational activities. At times, elements of the working forest are at odds with expectations of recreation users.

Mount Cheam and surrounding lands are part of Stó:lō traditional territory, and identified in the S'ólh Téméxw Use Plan Policy as Sanctuary lands.

Sanctuary lands are considered areas of the landscape which include and support Stó:lō spiritual/religious activities, including fasting, bathing and storage of possessions and require a pristine and private environment.

Policies in the FOREST designation recognize these different uses, but they are addressed primarily in other sections of the plan including Section 6.0 - Local Area Policies and Section 10.0 – Environment and Resources.

General Policies

- 5.3.1 **Protection of forest lands and balancing interests.** The Province of British Columbia should preserve the integrity of Provincial Forest boundaries in the long-term economic interests of the region and in recognition of the area's forest production.
- 5.3.2 **Ensure compatible development.** Crown lease applications and development schemes involving land uses not compatible with forest development, public recreation, or conservation use of FOREST lands will not be supported or encouraged by the Regional District.
- 5.3.3 **Community – crown interface management.** Regional District review and response to crown referral of development proposals are generally guided by the *FVRD Crown Community Interface Management Policy*.

Designation Policies

- 5.3.4 **Provincial forest lands.** This plan designates as FOREST Crown lands identified by the Province to be within the forest land base.
- 5.3.5 **Re-designation review.** FOREST areas may be extended or created through Plan amendment when new areas that meet the designation criteria are identified. FOREST areas may be reduced or removed if land is removed from the working forest.

Use Policies

- 5.3.6 **FOREST areas shall be used only for:**
- a. Forestry activities including silviculture, logging, reforestation and stand tendering approved by the Ministry of Forests, Lands & Natural Resources Operations;
 - b. Conservation use;
 - c. Park and park reserve;
 - d. Local institutional;
 - e. Major institutional;
 - f. Natural campground use; and,
 - g. Recreation use.
- 5.3.7 **Forestry-related activities and uses** are governed primarily by the *Forest Act* and the *Forest and Range Practices Act*.

- 5.3.8 **Geohazard impact assessment required.** Development located upslope or upstream of settlement areas and infrastructure require a review by a geotechnical and/or hydrological professional to ensure that no increase in risk (landslide, gully process, fan destabilization, etc.) to human safety, private property and water supplies will result. The assessment should be consistent with EGBC guidelines for terrain stability assessment in the Forest Sector, or other guidelines as they apply.
- 5.3.9 **Significant tourist recreation development** proposals with associated infrastructure where rezoning and OCP amendments may be necessary, may require a comprehensive review of servicing, visual impacts, hydrological and geotechnical impacts, habitat impacts and consultation.
- 5.3.10 **Recreation management plans, uses or facilities by the Province** should include consultation with the Regional District.
- 5.3.11 **Aggregate and mineral extraction uses** within the FOREST designation are primarily governed by the Province of British Columbia, and may also require Regional District permits and approvals.
- 5.3.12 **Consultation.** Development proposals within the FOREST designation which require an amendment to the Official Community Plan should undertake consultation with the Regional District, residents, stakeholders and affected first nations.
- 5.3.13 **Remediation planning and implementation** should be undertaken for forestry and resource extraction development.
- 5.3.14 **Visual values and view protection.** Impacts to visual values of Mt Cheam and lower slopes from along the Highway 1 and 9 corridors, and from the communities of Bridal Falls and Popkum are important to the local economy and rural character and should be maintained. Impacts to visual values from locations within should be assessed and preserved.
- 5.3.15 **Forest Service Road (FSR)** corridors are an important recreational asset for visitors and residents to the area. Alteration or deactivation plans for any major FSR and specifically the Bridal Falls FSR, should include consultation with the Regional District and stakeholders.
- 5.3.16 **Elk, Nevin and Dunville Creek** form part of the Chilliwack Community Watershed, which provides a back-up water supply for the City of Chilliwack. Proposed developments and plans which may affect the watershed should be referred to the City of Chilliwack for comment, and may require impact assessment.

Subdivision Policies

- 5.3.17 **Parcel size and conditions.** Land within the FOREST designation shall be subdivided only when subdivision is required in the interests of responsible forest management, in which case no parcel smaller than thirty five (35) hectares shall be created.



5.4 HIGHWAY TOURIST RECREATION COMMERCIAL

Existing commercial lands in Popkum and Bridal Falls are identified in the HIGHWAY TOURIST RECREATION COMMERCIAL (HTRC) designation. The designation identifies specific policies to address the distinct highway commercial areas.

Plan policies do not anticipate expansion of commercially designated lands within area. Should new commercial proposals may arise which warrant new or expanded commercial designations, they will be considered by the Regional Board may consider in accordance with the policies of the Plan.

The HIGHWAY TOURIST RECREATION COMMERCIAL (HTRC) designation accommodates commercial uses oriented towards meeting the needs of the traveling public, residents and visitors. This designation is applied to lands utilized for existing commercial activities or vacant commercial lands.

Commercial uses reflect the character of existing land uses and the accessibility to the Trans-Canada Highway. New commercial buildings should be of a high value architectural value, incorporating the design guidelines from Development Permit Area 4-D.

- Popkum is predominately residential development, and the commercial uses in this area are not predominantly tourist orientated but also serve Popkum, surrounding area residents and the traveling public with day to day needs.
- Bridal Falls is located away from existing and future residential areas, and oriented towards seasonal commercial uses or those who serve travelers and visitors. Commercial tourist and retail services are more appropriate for this area, for example; commercial campground, resort and service commercial.

General Policies

- 5.4.1 Land designated HIGHWAY TOURIST RECREATION COMMERCIAL should accommodate the commercial needs of the local community and the traveling public.
- 5.4.2 Development proposals shall ensure that adequate on-site parking facilities and that safe access and egress are provided.
- 5.4.3 HIGHWAY TOURIST RECREATION COMMERCIAL uses shall provide adequate sewage disposal and safe water supply as required by the Responsible Authorities and in accordance with the *FVRD Sustainable Service Provision for Community Water Systems* policies.
- 5.4.4 Development proposals shall satisfy the requirements of Development Permit Area 4-D, to ensure high quality architectural design, use and layout which respects the natural and agricultural character of the area, provides pedestrian connections, buffering between surrounding residential uses, and ensures storm water and wastewater respect the natural environment.

Designation Policies

- 5.4.5 The Plan map identifies areas for expanded or existing tourist commercial development lands with existing commercial uses as HIGHWAY TOURIST RECREATION COMMERCIAL.
- 5.4.6 HIGHWAY TOURIST RECREATION COMMERCIAL areas may be extended or created through Plan amendment where:
 - a. additional commercial services to serve the local community, tourist recreation uses and the travelling public are needed;
 - b. architectural design is respectful of the natural and agricultural character;
 - c. layout and design addresses impacts to neighbouring residential land uses;
 - d. storm water, wastewater and water supply facilities are adequate;
 - e. suitable access and egress exists or can be developed;
 - f. traffic and parking can be accommodated; and,
 - g. hazard mitigation requirements can be met.

Use Policies

- 5.4.7 HIGHWAY TOURIST RECREATION COMMERCIAL areas shall be used for only:

- a. local tourist commercial;
- b. highway commercial;
- c. local commercial; and,
- d. public uses.

5.4.8 Notwithstanding the above, HIGHWAY TOURIST RECREATION COMMERCIAL areas in Bridal Falls may also be used for:

- a. major tourist recreation commercial;
- b. commercial campgrounds; and,
- c. holiday parks.

5.4.9 New or expanded HIGHWAY TOURIST RECREATION COMMERCIAL uses should be:

- a. accessible from a collector or arterial road to avoid increased traffic through residential areas;
- b. designed to ensure high quality architectural standard which respects the character and does not reduce the quality of life for the surrounding neighbourhood;
- c. served by an approved community water system; and,
- d. served by an adequate on-site sewage disposal system or, where available, connected to an approved community sanitary sewer system.

Subdivision Policies

5.4.10 Land in the HIGHWAY TOURIST RECREATION COMMERCIAL areas shall be subdivided only in accordance with the standards of the Responsible Authorities, except that the parcel size shall not be less than:

Levels of Service	Minimum parcel size
On-site services – water & sewer	Two (2) hectares
Approved community water & sewer	0.225 hectares

5.4.11 Notwithstanding Section 5.4.10, consolidation of existing small lots which do not satisfy the parcel size requirements in the HIGHWAY TOURIST RECREATION COMMERCIAL designation is encouraged in order to provide space for on-site services and sufficient parking facilities in accordance with the requirements of the Responsible Authorities.



5.5 LIMITED USE (LU)

The LIMITED USE designation is intended to limit development in areas with significant geologic and flood hazards, limited road access, areas isolated from community services, zones of groundwater recharge and areas which are environmentally sensitive or otherwise best suited to low density rural uses. However, LIMITED USE lands may be re-designated in accordance with Plan policies if future studies show that an area can accommodate a broader range of uses without being affected by geologic hazards or damaging environmentally sensitive areas, and where access and other requirements can be met.

Subdivision policies of the LIMITED USE designation accommodate the creation of new parcels eight (8) hectares in area or greater. In recognition of the difficulties of site development within this designation, subject to zoning amendment, the clustering of parcels may be permitted in the LIMITED USE designation provided that average density of the parent parcel being subdivided will not exceed one parcel per eight (8) hectares. Clustered subdivisions will normally take the form of bare land strata developments with the remainder lands becoming common property that is protected from further subdivision, development, or disturbance by way of a restrictive covenant in favour of the Fraser Valley Regional District.

General Policies

- 5.5.1 LIMITED USE areas are established to minimize development in remote, inaccessible, hazardous or environmentally sensitive areas with limited or no access to community services and to maintain low development densities.

- 5.5.2 Development shall be controlled and uses may be restricted in areas of natural hazard potential and environmental sensitivity.
- 5.5.3 Environmentally sensitive areas shall be identified, preserved and buffered from development.

Designation Policies

- 5.5.4 The Plan Map designates lands with some or all of the following characteristics as LIMITED USE:
- a. geologic hazard;
 - b. flooding hazard;
 - c. environmental sensitivity;
 - d. limited community or development services;
 - e. poor road access; and,
 - f. lands best suited to low density rural uses.
- 5.5.5 LIMITED USE areas may be extended or created through Plan amendment.
- 5.5.6 LIMITED USE areas may be reduced and re-designated if future studies show that an area can safely accommodate a broader range of uses without environmental damage, unacceptable public risk, or excessive public expenditure on access or other public works.
- 5.5.7 Proposals to re-designate lands designated LIMITED USE in the Bridal Falls West Uplands area to must undertake a Neighbourhood Plan to address the following issues and in order to assess future development potential;
- a. comprehensive and coordinated application between interested landowners to ensure an applicant initiated process, and avoid fragmented development and servicing;
 - b. avoidance and mitigation of natural hazard areas;
 - c. identification and protection of environmentally sensitive areas;
 - d. opportunities for clustering of new parcels to address hazard and environmental site constraints;
 - e. lot layout which includes preservation of natural areas and vegetation where feasible;
 - f. local trail and park amenities, including connections to Regional and Provincial park sites in Bridal Falls;
 - g. visual quality of development lands from developed areas of Popkum-Bridal Falls, including lot layout which avoids siting along the hillside edge;
 - h. road and traffic access from Ministry of Transportation and Infrastructure (MOTI) roads;
 - i. servicing options which ensure long term financial and operational viability; and
 - j. consultation with the City of Chilliwack.

Use Policies

5.5.8 LIMITED USE areas may be used only for:

- a. Farm use;
- b. Conservation use;
- c. Local institutional;
- d. Low density commercial recreation;
- e. Park and park reserve;
- f. Recreation use;
- g. Single family residential use; and,
- h. Associated rural residential use.

5.5.9 Notwithstanding 5.5.8, associated rural residential uses are permitted unless prohibited by the zoning bylaw.

5.5.10 Subject to rezoning, low density commercial recreation uses may be permitted in the LIMITED USE designation on parcels eight (8) hectares in area or greater.

5.5.11 Rezoning applications to permit low density commercial recreation uses shall include a geohazard assessment and/or an environmental impact assessment and, if deemed necessary by the Regional Board, an engineering feasibility study to ensure that the proposed use will not result in unacceptable public expenditures or service demands.

5.5.12 Notwithstanding 5.5.8, land in the LIMITED USE area may also be used for resource extraction uses provided that the area is zoned for the use intended and has been the subject of a Plan amendment supported by studies which demonstrate that such uses:

- a. will not adversely affect surrounding lands;
- b. will not adversely affect the geological stability of adjoining lands; and,
- c. are in keeping with the development objectives and policies of this Plan.

5.5.13 Notwithstanding the uses outlined above in 5.5.8, the Regional Board may adopt zoning allowing for an industrial use for 54370 Bridal Falls Road to facilitate the ongoing forest processing operation regulated under land use contract, subject to geohazard assessment and mitigation (if necessary) and commitment to practise good neighbour operations including highway screening and full-cut off lighting.

Subdivision Policies

5.5.14 Land in LIMITED USE areas shall only be subdivided in accordance with the standards of the Responsible Authorities, except that the parcel size shall not be less than eight (8) hectares.

5.5.15 Notwithstanding Section 5.5.14 of this Plan, subject to zoning amendment density averaging may be permitted to facilitate the clustering of parcels away from hazard or environmentally sensitive areas provided that average density of the parent parcel being subdivided, excluding road and park dedications, will not exceed one parcel per eight (8) hectares, and

provided that each parcel created is zero point two (0.2) hectares in size or greater and is suitable for its intended use.

- 5.5.16 Where a clustered subdivision is proposed, the subdivider shall be required to register a restrictive covenant in favour of the Regional District which prohibits the subdivision or alteration of hazardous or environmentally sensitive areas except for:
- a. alterations or construction necessary to protect the residential parcels from geotechnical or other hazards;
 - b. location of services; and,
 - c. trails.

- 5.5.17 The covenanted area for clustered subdivisions should normally be continuous and not fragmented. However, in some circumstances, fragmentation may be desirable to avoid development in hazard areas or preserve identified environmental values.

- 5.5.18 Where possible, the covenanted area of a clustered subdivision should:
- a. border Crown land, park, or a covenanted area on an adjacent property; and,
 - b. stream corridors, wetlands, sensitive or hazardous slopes and other areas of hazard or environmental value.



East Popkum – Cheam Lake
Photo: Don Munro

5.6 RURAL (R)

The RURAL designation is intended to; direct development toward the suburban residential areas of Popkum and tourist commercial areas of Bridal Falls for efficient use of community services and nearby amenities. Rural lots are important in maintain the existing character of Popkum, and support rural lifestyles. In addition the low density use of RURAL land provides an important transition use between agricultural or conservation orientated land uses and suburban residential lands, and thereby reduce conflicting land uses.

The RURAL designation is applied to existing rural lots that have good road access but may have potential geohazard constraints, environmental considerations, servicing limitations, hydrological conditions or other constraints. Densities within the RURAL designation reflect these site conditions, are compatible with existing development and levels of servicing.

Subdivision policies of the RURAL designation accommodate the creation of new parcels two (2) hectares in area or greater. In recognition of the difficulties of site development within the Plan area, subject to zoning amendment, the clustering of parcels may be permitted in the RURAL designation provided that average density of the parent parcel being subdivided will not exceed one parcel per two (2) hectares.

General Policies

- 5.6.1 **Rural lifestyle and character.** RURAL areas are established to accommodate a variety of rural lifestyles, maintain the low density rural character of the Plan area.
- 5.6.2 **Infrastructure and public services.** RURAL areas shall generally limit the demand for infrastructure and public services through the provision of on-site services.
- 5.6.3 **Complimentary uses.** The Regional Board may consider a broad range of uses in keeping with rural lifestyles and the environmental policies of the Plan whenever possible.
- 5.6.4 **Cheam Lake Wetlands Regional Park.** Development proposals adjacent to Cheam Lake Wetlands Regional may require conditions which respect the sensitive environmental habitat of the park, including but not limited to timing of construction; and, the siting, size and dimension of development.

Designation Policies

- 5.6.5 The Plan map designates lands with some or all of the following characteristics as RURAL:
- outside the ALR and floodplain;
 - predominantly rural in character;
 - anticipated to be suitable for on-site servicing;
 - good access to public roads;
 - transition area between agricultural lands and suburban residential uses
- 5.6.6 RURAL areas may be extended or created through Plan amendment, where additional lands are shown to meet the designation policy criteria above, where it can be shown that safe building sites exist, and where lands are shown to be suitable for on-site services.
- 5.6.7 RURAL lands adjacent to Cheam Lake Wetlands Regional Park may be suitable for future re-designation to SUBURBAN RESIDENTIAL provided that:
- environmental impacts to the Park can be adequately addressed;
 - suitable lands free from geological and hydrological impacts, including drainage and soils are demonstrated; and,
 - development proposals that can demonstrate a design, layout and density which respect the natural character of the park.



Low density development with natural materials at park edge.

Design which creates a hard edge to ensure no encroachment uses. Photo: Landchoices.org

- 5.6.8 Development on RURAL lands may be constrained by minor geotechnical or flooding hazards. However, it is anticipated that safe building sites can be identified and protected through site-specific measures.

Use Policies

- 5.6.9 RURAL areas may only be used for:
- a. Farm uses excluding intensive agriculture;
 - b. Conservation use;
 - c. Park and park reserve;
 - d. Local institutional;
 - e. Single family residential use; and,
 - f. Associated rural residential use
- 5.6.10 Notwithstanding 5.6.9, associated rural residential uses are permitted unless prohibited by the zoning bylaw.

Subdivision Policies

- 5.6.11 Land in RURAL areas shall only be subdivided in accordance with the standards of the Responsible Authorities, except that the minimum parcel size shall not be less than two (2) hectares.
- 5.6.12 Notwithstanding Section 5.6.11 of this Plan, subject to a zoning amendment density averaging may be permitted to facilitate clustering parcels to avoid hazardous or environmentally sensitive areas provided that the average density of the parcel being subdivided, excluding road and park dedications, will not exceed one parcel per two (2) hectares, and provided that each parcel created is zero point two (0.2) hectares in size or greater and is suitable for its intended use.
- 5.6.13 Where a clustered subdivision is proposed, the subdivider shall be required to register a restrictive covenant in favour of the Regional District which prohibits the subdivision or alteration of hazardous or environmentally sensitive areas except for:
- a. alterations or construction necessary to protect the residential parcels from geotechnical or other hazards;
 - b. the location of services; and,
 - c. trails.
- 5.6.14 The covenanted area of a clustered subdivision should normally be continuous and not fragmented. However, in some circumstances, fragmentation may be desirable to avoid development in hazard areas or preserve identified environmental values.

What is a clustered subdivision? What is density averaging?

Essentially it is a reduction of average lot size within a residential development in exchange for greater conservation of natural areas. This includes:

- residential development
- concentrates lots in a compact area of the site
- allow for greater conservation of natural areas.
- reduced minimum lot sizes, setbacks and frontage distances
- maintains the same number of dwelling units at the site as an average.



- 5.6.15 Where possible, the covenanted area of a clustered subdivision subdivision should:
- a. border Crown land, park or covenanted area on an adjacent property; and,
 - b. include stream corridors, wetlands, sensitive or hazardous slopes and other areas of hazard or environmental value.

- 5.6.16 The Regional Board or the Subdivision Approving Officer may require upon rezoning or subdivision of land that advance street and conceptual lot layout plans be provided to demonstrate how the proposed lot layout would facilitate future subdivision or subdivision of adjacent lands.



5.7 SUBURBAN RESIDENTIAL (SR)

The purpose of the SUBURBAN RESIDENTIAL designation is to recognize existing residential areas and accommodate growth in the serviced Popkum community core. These lands provide for a desirable, well serviced, high quality community with a suburban lifestyle within an overall rural context. SUBURBAN RESIDENTIAL policies provide for the continued infilling of the established West and East Popkum residential areas.

Without community water service, the minimum parcel size in SUBURBAN RESIDENTIAL areas is two (2) hectares. The minimum parcel size may be reduced to 1100 square metres where the proposed development will be served by an approved community water system, or 800 square metres where served by both the FVRD community water and sewer system.

SUBURBAN RESIDENTIAL areas are serviced by the FVRD Area D Integrated Community Water System. Levels of service for sanitary sewer differ between East and West Popkum. West Popkum can facilitate increased density and smaller lot sizes due to the availability of FVRD sewer service. However, the more rural east Popkum policies support on-site sewage disposal.

General Policies

- 5.7.1 **Well suited development lands.** Development lands are concentrated in the Popkum area given these lands are generally free from geotechnical and flooding constraints; serviced by community water; have access to community sewer or on-site septic, and are outside of the agricultural and environmentally sensitive areas.
- 5.7.2 **Review criteria.** In the design and layout of new development in SUBURBAN RESIDENTIAL areas special consideration should be given to the following:
 - a. the character, scale, and layout of existing adjacent residential areas;

- b. updating and improving servicing facilities of existing areas;
- c. the traffic flow on existing residential streets and pedestrian circulation;
- d. conservation of areas of natural, scientific, cultural significance; and,
- e. the orderly growth of residential communities.

5.7.3 **Local area policies.** Zoning amendments of land within the West Popkum SUBURBAN RESIDENTIAL area to facilitate residential land use should consider the Plan policies outlined in Section 6.0 Local Area Policies.

Designation Policies

5.7.4 SUBURBAN RESIDENTIAL lands are generally:

- a. above the floodplain and generally free from geologic hazards;
- b. already zoned for suburban residential densities or subdivided into small parcels;
- c. easily accessible by public roads;
- d. large parcels with a significant portion of the property suitable for small-lot development; and,
- e. located outside the Agricultural Land Reserve (ALR)
- f. areas anticipated to be suitable for on-site sewage disposal at the planned density.

5.7.5 SUBURBAN RESIDENTIAL areas may be extended or created through Plan amendment provided:

- a. comprehensive, integrated plans are presented which demonstrate that additional lands that meet the designation policies are identified;
- b. development trends and community needs warrant such an extension or creation; and,
- c. the creation or extension does not contravene the Plan objectives and policies.

Use Policies

5.7.6 SUBURBAN RESIDENTIAL areas may be used only for:

- a. Single family residential use;
- b. Local institutional;
- c. Associated rural residential use;
- d. Park and park reserve; and,
- e. Recreation use.

Subdivision Policies

5.7.7 **Minimum parcel size.** Land in SUBURBAN RESIDENTIAL areas shall only be subdivided in accordance with the standards of the Responsible Authorities except that the minimum parcel size shall not be less than:

- a. two (2) hectare; or,

- b. 1100 square metres provided that the proposed development is to be serviced by an approved community water system; and,
- c. 800 square metres where connected to both the FVRD community water and sewer system.

5.7.8 **Community sewer.** Subdivision developments where connected to the FVRD community sewer system shall be provided in accordance with service area policies outlined in Section 7.0 - Infrastructure and Services to ensure efficient and high quality sewer nodes

5.7.9 **On-site septic.** Where land in SUBURBAN RESIDENTIAL areas is proposed to be developed on the basis of on-site sewage disposal, land shall only be subdivided in accordance with the standards of the Responsible Authorities and where, an Professional Engineer report confirms that the:

- a. proposed development is suitable for long term on-site sewage disposal and that no danger exists for ground water pollution which could lead to environmental or human health problems; and,
- b. an alternative or "back-up" field area is protected on for each lot.

5.7.10 **Good Neighbour Practices.** Subdivision and development of land in the SUBURBAN RESIDENTIAL areas should limit impacts and disruption on existing and nearby homes by following the *FVRD's Good Neighbour Practices*, including containing waste and litter onsite; parking on-site; avoiding degradation of linear park/sidewalks; and communication with neighbours by providing contact and project information.

5.7.11 **Hazard avoidance.** Where land is proposed to be subdivided and a portion of the parcel is subject to hazards which make the lands unsafe for residential development, each parcel created by subdivision shall meet the minimum parcel size policies of this plan exclusive of the hazard lands.

5.7.12 **Connectivity.** In order to achieve a connected and comprehensive development over time development proposals should provide advance street and conceptual lot layout plans to demonstrate how the proposed lot layout would facilitate future development of adjacent lands, include subdivision, road connection and linear trail improvements.

5.7.13 **Fire protection.** Water systems serving development of 1100 square metres or 800 square metre parcels in the SUBURBAN RESIDENTIAL designation should provide sufficient water flows for fire protection and adequate fire hydrants.

6.0 LOCAL AREA POLICIES

6.0 One Community – Two Neighbourhoods

Electoral Area 'D' is home to the two neighbourhoods of; Popkum and Bridal Falls. While each neighbourhood is unique, they collectively contribute to the rural – recreational character of the area. Maintaining and blending new development with the unique characteristics of each neighbourhood will be an important consideration for future zoning and Official Community Plan amendment applications. The following local area policies will guide the Regional Board in their future decisions.

6.1 Popkum

Residential

Popkum is a neighbourhood with two geographically distinct areas, split by the Highway 9 corridor; West Popkum and East Popkum. Most residents of Electoral Area "D" reside in the suburban residential areas of West Popkum or to a lesser extent the East Popkum larger lot residential developments alongside Highway 9 corridor.

Popkum is an established suburban residential area with high quality single family dwellings bordered by large semi-rural parcels with development potential, and Agricultural Land Reserve (ALR) lands to the south. Popkum is a well serviced area which includes; FVRD EA D Integrated Water System, BC Transit bus service, two provincial highways - #1 and #9, parks, and the new Rosedale Traditional Community School (K-9). Residents can also access city services and employment in Chilliwack within a reasonable driving distance.

Residents of Popkum describe their community as a residential neighbourhood of distinction which provides a niche in the local housing market with larger lot sizes and opportunities for new single family dwelling building lots. As additional suburban residential development is planned for Popkum, residents have identified the following as values to preserve and attain for their community:

- Maintain high quality suburban residential building form and character;
- Continue existing large (800 m² to 1100 m²) minimum lot size policy;
- Ensure trail connection options for local residents to be active and access local services;
- Preserve trees and natural vegetation where possible;
- Design and integrate new residential development which respects the scale and privacy of established homes, including lot layout, building form and orientation.


- Address noise mitigation from highway corridors through lot layout, berms and landscaping, or structural building elements such as triple pane windows, sound proofed interior walls, or other design elements.




The Plan policies provide a flexible framework to address these community development concerns when rezoning SUBURBAN RESIDENTIAL designated lands.

Policy

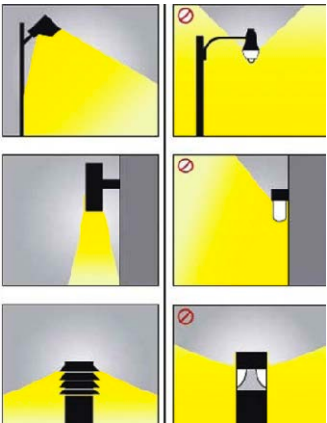

6.1.1 Rezoning applications to facilitate subdivision of new residential parcels should address the following items:

- a. **Community consultation.** Complete early and ongoing neighbourhood consultation to;
 - i. share proposal information, including comprehensive design drawings to illustrate building form and character, lot layout, overall development concept, and how the design will satisfy the Design Guidelines for West Popkum Residential Development Table 1.0 (below);
 - ii. obtain feedback;
 - iii. respond to community concerns; and,
 - iv. ensure ongoing community communication, including the posting of signage to advise of developer contact information.
- b. **Design.** New suburban residential developments should enter into a design control agreement with the Fraser Valley Regional District and addresses the *Design Guidelines for West Popkum Residential Development*.

Table 1: Design Guidelines for West Popkum Residential Development		
Landscaping		Tree and vegetation plantings to create privacy and natural aesthetic.
At ground design		Provide at grade deck and ground oriented outdoor living spaces to avoid overlooking neighbouring lots.

<p>Privacy design</p>		<p>Providing privacy between neighbouring homes is an important factor in design and lot layout. Elements can include;</p> <ul style="list-style-type: none"> -angled or staggered house placement; -curved street network.
<p>Tree retention</p>		<p>Identification of mature trees for retention by an arborist¹, including protection measures during construction and post development such as snow fencing and tree protection covenants.</p>
<p>Street facing</p>		<p>Building elevations should provide variety and interest to the street front.</p> <p>Front porches and door entrances orientated to the street.</p> <p>Avoid back of homes facing onto a public road.</p> <p>Corner lots to address both street edges.</p>

¹ Arborists are certified by the International Society of Arboriculture (ISA) in British Columbia.

<p>Lighting</p>	<p>Full cut off vs. traditional</p> 	<p>Provide full cut off lighting equipment which minimizes light spill and intrusion into neighbouring properties.</p>
<p>Public trail – linear park</p>		<p>Provide for public trail - linear park connection where identified in Schedule 8 – Parks and Trails or otherwise practical.</p>

6.1.2 **Highway noise.** Sound mitigation including the use of concrete panels or walls to buffer highway noise should be installed along the Highway 9 corridor in West and East Popkum residential areas for;

- existing residential lot by working together with the Ministry of Transportation and Infrastructure to create a design and funding strategy; and,
- new development by ensuring new subdivision and zoning amendment proposals address noise impacts as a condition of approval.

6.1.3 **Good Neighbour Practices.** All building and development in Popkum-Bridal Falls should adhere to the FVRD's *Good Neighbour Practices* policy to ensure construction and site preparation impacts are managed and minimize impacts to the neighbouring residents.

6.1.4 **Agricultural buffer.** Rezoning applications for facilitate residential development along the Agricultural Land Reserve (ALR) boundary should adhere to the following best practices:

- a. House design and materials, such patio orientated away from ALR lands;
- b. Building placement a minimum of 25 meters (82 feet) from the edge of the agricultural land;
- c. Landscape buffer in accordance with the Agricultural Land Commission (ALC) Agricultural Land Commission's report "Landscape Buffer Specifications";
- d. Graduated density to reduce exposure to farming uses.



6.2 Bridal Falls

Tourism Commercial Recreation Corridor

Bridal Falls is has traditionally been a regional tourism destination for the travelling public or visitors to the numerous commercial-recreation uses. The area is rich in natural beauty and overnight, day trip and passing visitors are drawn to Bridal Veil Falls Provincial Park, waterslide attraction uses, or camping and resort areas in the neighbourhood. The combination of quality destination opportunities with the high visibility location, easy access to Highway 1 and the nearby large population of Metro Vancouver and the Fraser Valley creates a unique outdoor recreation - tourism corridor.

In recent years, the Popkum-Bridal Falls area has experienced the loss of several destination businesses. These businesses have been replaced by residential uses. Ensuring the vitality of this tourism destination area is an important objective of the Plan policies. Local business owners have identified the following challenges for the community:

- Expanded or enhanced tourism destination uses;
- Limited visibility and signage of business services to the travelling public;
- Lack of highway public washroom facilities; and
- Need for coordinated marketing and branding to boost awareness of Bridal Falls.

Recognizing the limitations on expanded density in the Bridal Falls area, the Plan policies support opportunities to strengthen existing uses, promote their operation and provide complimentary uses in the Bridal Falls uplands area which enhance the tourism brand for Bridal Falls.

Bridal Falls Uplands

The Bridal Falls uplands are approximately 80 hectares of relatively low-slope terrain to the west of the Bridal Falls tourism commercial corridor. Located in a naturally spectacular are adjacent to Mount Cheam with views across the Fraser River and valley bottom, this upland bench extends from Electoral Area “D” and extends over the City of Chilliwack boundary to the eastern hillsides neighbourhood. The uplands have been identified in previous studies as an area of suitable for future residential development² as it features:

- minimal geohazards;
- outside the Agricultural Land Reserve (ALR);
- no Fraser River floodplain hazard;

² Regional District of Fraser-Cheam, Bridal Falls Uplands study, March 11, 1994

- large intact properties - land assembly unlikely;
- proximity to Highway 1 and urban growth areas; and
- comprehensive neighbourhood level servicing opportunities.

In consultation with Bridal Falls uplands property owners, the Plan policies support future development of the area. Ensuring the future development of the uplands occurs in a planned and comprehensive manner, rather than ad-hoc site specific development is essential to ensuring hillside development that addresses the following challenges;

- inter-connected community services such as parks, trails, sewer and water services;
- visual impact to ensure Popkum retains its green backdrop which contributes to aesthetic and scenic qualities of the community;
- environmentally sensitive areas such as watercourses, vegetation, and wildlife corridors to ensure their early identification, protection and integration into the development;
- geohazard areas identified by site specific study to address any avoidance, lot layout and mitigation measures;
- lot layout and functional challenges to ensure the design of lot layouts, roads and infrastructure preserve the hillside character, retain vegetation and minimize land alteration; and,
- financial impacts of servicing hillside areas which can require more costly infrastructure in comparison to the valley bottom in order to preserve slope and creek stability distance from existing water and sewer nodes, and road networks.



Future development requirements. The Bridal Falls uplands are positioned to be the next long term growth node for Electoral Area “D”. The uplands area is designated LIMITED USE in Plan policies, but generally supports the future development and re-designation of the Bridal Falls uplands provided two key elements are addressed;

- West Popkum build out. The substantial build out of planned growth areas in West Popkum is critical to ensure efficient servicing infrastructure such as sewer and water services, and provide completed communities which minimize disruptive transition periods.
- Neighbourhood Plan. A comprehensive plan which considers the node as a whole rather than ad-hoc applications, which requires landowners to work together with the Regional District, and addresses the challenges servicing, geohazard, environmental, functional and financial impacts of the development.

Policy

- 6.2.1 **Future Neighbourhood Plan.** Bridal Falls Uplands is identified in this Plan a future Neighbourhood Plan Area to ensure comprehensive development following the substantial build out of the West Popkum area.
- 6.2.2 **Bylaw amendments.** The Regional Board will not support the zoning or community plan amendments prior to the development of the Bridal Falls Uplands Neighbourhood Plan.
- 6.2.3 **Shared interests.** The first nations and City of Chilliwack should be key stakeholders in the development of the Plan to explore opportunities for trails, roads and servicing, and interface issues of mutual interest.
- 6.2.4 **Neighbourhood Plan components.** The Bridal Falls Uplands Neighbourhood Plan should address the following elements:
- a. land use concept plan which provides opportunities for a diversity housing densities, residential, gateway commercial, and tourism related uses that strengthen Bridal Falls as a tourism commercial corridor;
 - b. comprehensive community services such as parks, trails, sewer and water services;
 - c. visual impacts to ensure Popkum retains its green backdrop and contributes to aesthetic and scenic qualities of the community;

- d. environmentally sensitive areas such as watercourses, vegetation, and wildlife corridors to ensure their early identification, protection and integration into the development;
- e. geohazard areas identified by site specific study to address any avoidance, lot layout and mitigation measures;
- f. conceptual lot layout to ensure the design of lot layouts, roads and infrastructure preserve the hillside character, retain vegetation and minimize land alteration; and,
- g. financial impacts to the FVRD of servicing hillside areas.

6.2.5 **Business Association.** The Regional Board supports the development of a Business Improvement Association for the Popkum-Bridal Falls area to cohesively advocate and address shared concerns regarding; tourism destination branding and advertising, including highway signage and media outreach.

6.2.6 **Highway rest area.** The Regional Board will advocate to the Province of British Columbia for a public rest area and washroom facilities to serve Highway 1 travelers in consultation with local residents and businesses.

6.2.7 **Tourism destination.** The Regional Board recognizes Bridal Falls as regional tourism destination that contributes to Fraser Valley economy that is strengthened with expanded tourism destination developments, and supported in the HIGHWAY TOURISM RECREATION COMMERCIAL designation.

6.2.8 **Bridal Veil Falls Provincial Park.** The Regional Board supports an extended operating season for Bridal Veil Falls Provincial Park to enhance the tourism opportunities in the area.

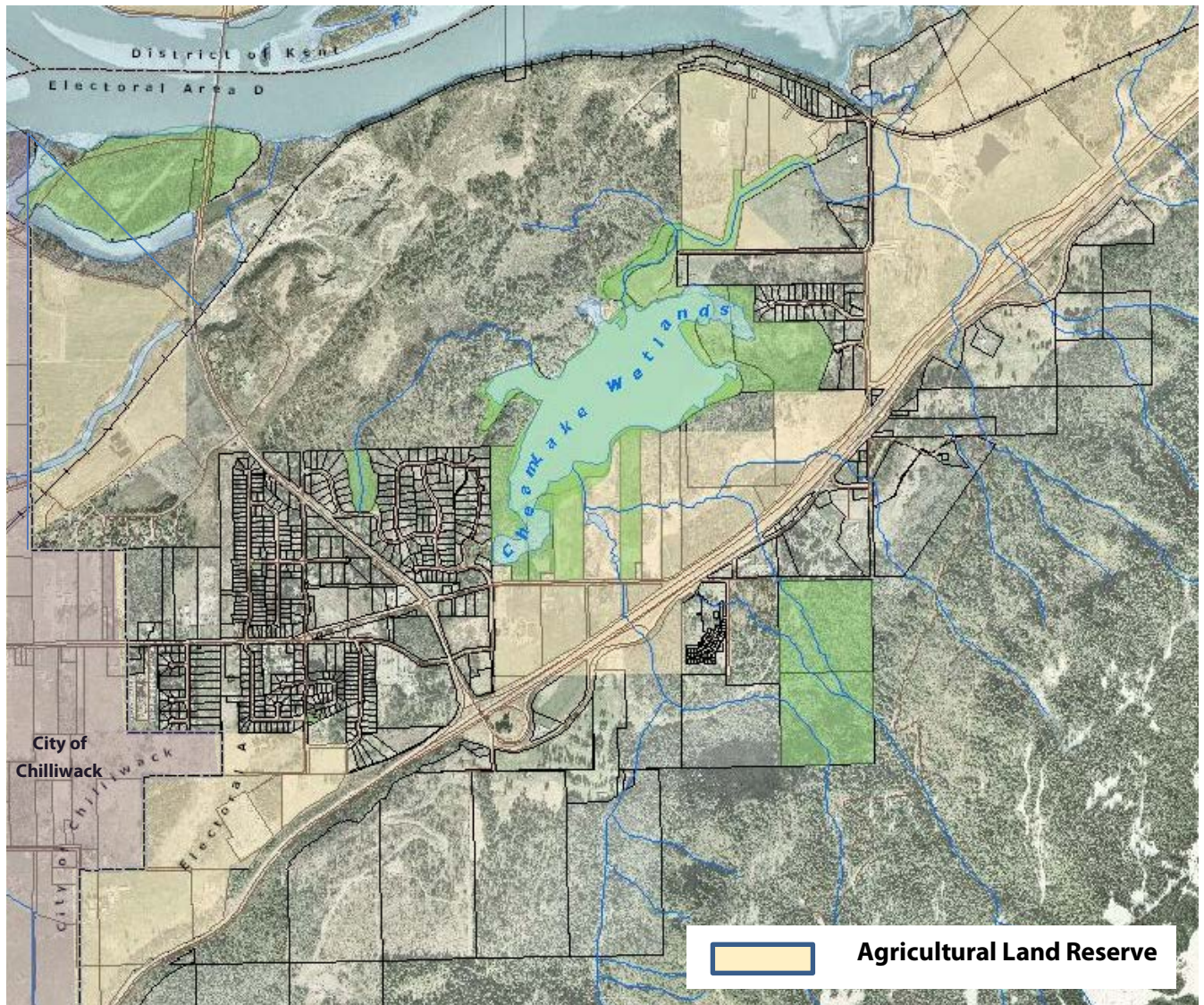
6.3 Agricultural Land Reserve (ALR) Lands

Agricultural Land Reserve (ALR) lands represent nearly 24% of privately owned properties in Electoral Area “D”. The ALR shapes the rural character and in many ways establishes a development boundary around the existing West and East Popkum neighbourhood core.

West Popkum in particular is a growing residential neighbourhood located adjacent to over 60 hectares (150 acres) of ALR designated lands. Over the years, development interest has resulted in a series of exclusion and residential development proposals in the 1990’s to early 2000’s. The Fraser Valley Regional District completed the *West Popkum Agricultural Land Reserve Boundary Review* in July 1997 to provide a comprehensive background for a boundary review process with the Agricultural Land Commission (ALC). The boundary review led the ALC to exclude approximately 6 hectares of ALR land. In 1997, the ALC concluded that the remaining lands were not necessary for the development of Popkum given; the remaining ALR lands have good agricultural capability, and the substantial development potential of the adjacent non-ALR lands.



Popkum – Agricultural Land Reserve



ALR Boundary Review

In subsequent years, Popkum ALR landowners have continued to advocate for ALR exclusion. Landowners cite limitations to agriculture such as poor soil quality and drainage, limited sunlight hours in the shadow of Mt. Cheam, and rational extension of roads, utilities, and development patterns. Exclusion and subsequent residential development of the ALR lands has been identified by the landowners as a solution to eliminate agricultural conflicts, utilize the lands for the highest and best use, and provide additional housing and options for community wastewater (sewage) treatment.

The rationale for exclusion and development of ALR lands in Popkum is unclear. Over 60% of ALR lands in Popkum-Bridal Falls are farmed³, this is just behind the City of Abbotsford's utilization rate of 67%. Clearly there are farm opportunities in Popkum-Bridal Falls. ALR lands also provide a buffer to residential uses from highway corridors and contribute to the rural aesthetic of the area.

Development opportunities for future housing over the next 14 years are satisfied by undeveloped lands outside the ALR designated SUBURBAN RESIDENTIAL. Future development lands on the Bridal Falls uplands (bench) can further extend development potential in the Plan area. Therefore the lack of development lands is not a strong rationale for exclusion. Furthermore, options for wastewater servicing in Popkum are accommodated on non-ALR lands located within existing utility corridors, commercial and residential development nodes.

Nonetheless, the FVRD recognizes the desire by landowners to consider development options for the ALR lands. In order to guide this process, the Plan provides policy to guide an ALR boundary review for Popkum and provide an opportunity for landowners/applicants to demonstrate the merits of exclusion to the community, ALC and FVRD. Future boundary review initiatives must be completed in a comprehensive and coordinated manner involving interested Popkum landowners and not individual applications. The final authority for the ALR exclusion or boundary amendment resides with the Provincial Agricultural Land Commission (ALC).

Expanded Land Uses

Expanded land use options for ALR lands was identified by residents as an opportunity to maintain and sustain the rural – agricultural community in Popkum-Bridal Falls. The Agricultural Land Commission (ALC) supports many tourism uses outright provided they are accessory to a farm use. This could include farm retail sales and accommodation uses, and

³ Agricultural Land Use Inventory - Fraser Valley Regional District, Ministry of Agriculture – Province of British Columbia, 2011-2013.

subject to ALC approval carriage home uses. Ensuring sensitive application of expanded agricultural uses will be important in avoiding conflicts between neighbouring residential uses.

Expansion of agri-tourism uses may provide interested farm operators an opportunity to complement and grow their business with a range of accessory tourist activities⁴. Popkum offers an attractive tourist destination given its picturesque agricultural setting between the mountains and close proximity to Bridal Falls. In nearby Agassiz and Chilliwack, there are a diversity of agri-tourism businesses highlighted in the Circle Farm program including cheese and honey producers, farm stay accommodations, and many more. The success of the Circle Farm program highlights the growing consumer trends towards locally produced foods and direct farm-to-consumer retail. The Agricultural Land Commission supports many agri-tourism uses outright provided they are accessory to a farm use. Other more intensive activities where conflicts may occur with nearby land uses may require local government approval⁵. The expansion of agri-tourism uses will need to be sensitive to nearby farm operations so that holiday-makers and agriculture practices can beneficially co-exist. The Plan provides policy which supports a number of agri-tourism uses accessory to a farm operation including natural campground, farm tours, and food and beverage sales. Expanded agri-tourism uses may require rezoning and/or approvals from Agricultural Land Commission.

Policy

6.3.1 Boundary review. Proposals to exclude ALR lands or undertake a boundary review in Popkum must address the following;

- a. Phase One – Assessment
 - i. Comprehensive and coordinated application between interested landowners to ensure an applicant initiated process;
 - ii. community benefit opportunities from expanded development; and,
 - iii. rationale to demonstrate merit of excluded and included ALR lands; and,
 - iv. agronomy study prepared by a Professional Agrologist, selected in consultation with ALC staff that provides advice with respect to agricultural capability of the lands.

⁴ Agricultural Land Reserve Use and Subdivision and Procedure Regulation; “agri-tourism” means a tourist activity, service or facility accessory to land that is classified as a farm under the Assessment Act;

⁵ Refer to the Agricultural Land Reserve Use and Subdivision and Procedure Regulation for more details.

b. Phase Two – Conceptual Plan and Consultation

- i. lot layout and design opportunities to utilize and buffer development from existing utility corridors. Options could include: trail corridors, visual buffer areas and siting of community wastewater treatment infrastructure;
- ii. stakeholder consultation with key agencies, including the City of Chilliwack (West Popkum), Agricultural Land Commission and Ministry of Transportation and Infrastructure; and,
- iii. neighbourhood consultation to ensure ongoing communication, and identify issues of concern and response; and,
- iv. overall development concept, including sample building form and character design, potential uses, and overall servicing and lot layout to ensure an efficient use of the land.

6.3.2 **Expanded agricultural uses.** Expanded land use options to supplement and support agriculture in Popkum will be considered by the Regional Board, including agri-tourism uses such as farm gate retail, bed and breakfast and other tourism accommodation uses, and carriage home/secondary suite uses.

6.3.3 **Rural character.** Agricultural Land Reserve (ALR) lands in Popkum contribute to the rural character of the community.



7.0 INFRASTRUCTURE AND SERVICES

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7.1 Servicing the future

Popkum-Bridal Falls infrastructure and services will grow and centralize in the Popkum “community core” as development and density increases. The surrounding “countryside” of rural and resort lands will generally have on-site services suited to lower density development. Major recreation – resort or commercial developments will require new systems to be developed.

The policies of this Plan recognize that Regional District infrastructure and services – parks and trails, fire service, water and sewer, storm water and street lighting utilities, and transit – will need to expand as the community population grows. To be sustainable and effective, the infrastructure and services must be high quality, efficient and financially viable, while creating minimal impacts on the environment. Infrastructure and services are vitally important parts of the community as each contributes to health, safety, quality of life and ultimately adds value to Popkum – Bridal Falls.

West Popkum is growing and is a desirable suburban residential area with commercial services centred around the Highway 9 and Yale Road East roundabout. The community features convenient access to employment, transit service, nearby schools, parks and a range of local commercial services. In West Popkum there is a higher expectation for municipal-like services such as parks, transit, sidewalks and paths, water, sewer, storm water and street lighting. Plan policies reflect these higher expectations for development on suburban residential and commercial designated lands.

While a wide of services is available in Popkum, historically individual on-site septic systems provided wastewater treatment. Market changes and increased demand for smaller lots requires a transition from onsite septic to a public sewage system. Plan policies support the development of a two centrally located Class “A” high quality sewage systems, which are publicly owned and operated to serve the needs of West Popkum. Additional policies provide a strategy to avoid ad-hoc sewage service areas which result in overlapping or criss-cross connections throughout the community and create financial and operational challenges, and resulting in an inefficient service. This centralized sewage system will compliment the existing water service owned and operated by the FVRD.

To support sustainable infrastructure and services, the FVRD will work to ensure that:

- **Service efficiency and life cycle costs are priorities.** We will ensure infrastructure expansion is designed and planned to be operationally efficient, accounts for long term construction, operation replacement costs, and accounts for long and short-term servicing needs.
- **Options for rural transportation are provided.** We will provide options by car, bike, public transit or on foot while recognizing the financial and geographic constraints for each option in a suburban residential and rural area.

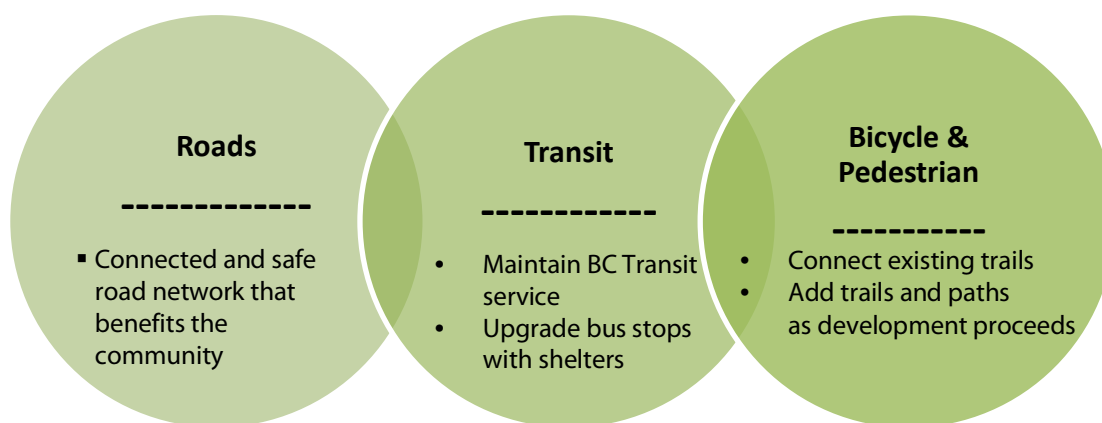
- **Services are high quality and minimize environmental impact.** We will design sewer service and utilities to ensure highest standards, minimize land area footprint and achieve the lowest impact on the environment.

Policy

- 7.1.1 All services should be designed, operated, maintained and administered to minimize impact to the natural environment and to perform reliably and efficiently over long term. Low-impact servicing approaches are strongly encouraged.
- 7.1.2 Services for individual developments should support continuous year-round occupation. Servicing standards suitable only for seasonal occupation should be avoided.
- 7.1.3 Capital replacement reserves will be required for all community services, including but not limited to water, sanitary sewer, storm water, parks and trails, and street lighting services.
- 7.1.4 Development services will be provided in accordance with FVRD Subdivision and Development Servicing Bylaw, the policies of the Regional Board (including this Plan, and the requirements of Responsible Authorities.

7.2 TRANSPORTATION

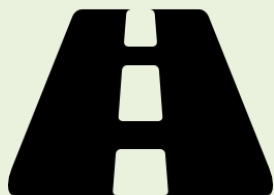
The Plan supports the ongoing development of the transportation network to meet the needs of existing and future residents, businesses and visitors. The Plan promotes public transportation and cycling as an alternative mode of transportation. Ensuring a connected network of local roads is critical to avoid fragmented or panhandle access routes, which often result in disconnected and inefficient transportation routes for cars, bikes and pedestrians. Achieving these improvements over time will require the continued collaboration between the FVRD, the Province, developers and the community.



Transportation Elements

- **Well connected to Provincial highway networks.** Popkum – Bridal Falls is connected to the provincial highway system via Highway Number 1 (Trans-Canada Highway) and Highway Number 9 (Rosedale-Agassiz Bypass Highway). The provincial highway network physically shapes the community, and also influences the vehicle dependant character of the area.
- **Roads are owned-operated by the Province of BC.** The FVRD does not own or maintain roads within Electoral Area “D”. The Province of British Columbia is responsible for all roads, from provincial highways to local roads. This responsibility is managed by the Ministry of Transportation & Infrastructure. Road maintenance is undertaken by private contractors hired by the Ministry. The FVRD works together with the Province to plan for an efficient and safe rural road network.
- **Transit provides options.** Community consultation feedback from residents generally support transit options, particularly for seniors and youth. Service levels were identified as sufficient. However the need for a safe and visible bus stop was identified.
- **Transit and trails are paid by local and regional taxpayers.** A service area collects and fund the transit and trail system for residents. Expansion of these services requires careful financial consideration by local Popkum-Bridal Falls taxpayers.

ROADS



Primarily for public vehicle and transit use, but cycling and walking are transportation options are growing. Local residents have identified desired improvements such as cycling paths, pedestrian crossings and sidewalks the West Popkum neighbourhood.

- Ensure a network of local roads that inter-connect over time and avoid panhandle or fragmented road segments;
- Address illegal off street parking along Highway #9 corridor as highway expansion and/or improvement plans proceed;
- Require noise attenuation and visual buffers to address road noise and views for new residential developments.

TRANSIT



Popkum and Bridal Falls is served by the Agassiz-Harrison connector bus service provided by BC Transit, in cooperation with the FVRD, Village of Harrison Hot Springs, District of Kent and the City of Chilliwack.

The service operates year-round between Harrison Hot Springs and Chilliwack (with stops in between) throughout the day.

Residents have identified a need for a bus shelter, and safe and convenient stop location in West Popkum.

BICYCLE & PEDESTRIAN ROUTES



There is a strong desire within the community for bike lanes on Yale Road East and connected pedestrian sidewalks and trails within West Popkum.

Trails and sidewalks policies are provided in Section 8 – Parks and Trails. In general Plan policies support:

- Safe crossings for pedestrian and cyclist users of Highway 9 and Yale Road East.
- Upgraded shoulder lanes for pedestrian, cycling and agricultural uses on Yale Road, Popkum Road North to Elgie Road.
- Expanded linear trail routes in West and East Popkum as development occurs or retrofit as funds are available.

Policy

Road Design and Access

- 7.2.1 Upgrades to Yale Road East and Popkum Road north to Cheam Wetlands Regional Park should include road shoulders which provide suitable and safe designated paths for pedestrian, cycling uses and in agricultural areas for horse riding
- 7.2.2 Each new parcel of land should have frontage on, and reasonable and practical access to a public road.
- 7.2.3 Land uses in the Plan area shall be provided with adequate and safe access for all traffic including emergency vehicles.
- 7.2.4 Access for residential uses on side roads should be constructed in accordance with the Ministry of Transportation & Infrastructure standards outlined in *Location, Design and Construction of Residential Driveways on Side Roads Outside Municipalities*.
- 7.2.5 New road alignments should be designed to provide:
 - i. extension and connection to existing or proposed roadways adjacent to or beyond the subdivision;
 - ii. alternate route choices where possible;
 - iii. adequate and safe access for all land uses consistent with the level of traffic generated and need for emergency access;
 - iv. minimal or no environmentally sensitive areas and stream crossings;
 - v. limited impact to agriculture operations and fragmentation of agricultural lands.

Bridal Falls Uplands

- 7.2.6 Development of the Bridal Falls Uplands should require a comprehensive traffic and route analysis in consultation with the Fraser Valley Regional District, City of Chilliwack and the Ministry of Transportation and Infrastructure to: identify route options; ensure first and secondary access routes; assess capacity, traffic volume impacts to the roundabout and highway interchange, geo-hazards, inter-connection to the City of Chilliwack; and identify long term operational requirements.

Traffic Impact

- 7.2.7 The Regional Board may require that significant development proposals include a traffic impact analysis report prepared by a qualified professional.

On street Parking

- 7.2.8 Development within the Highway Commercial designated lands in Popkum and Bridal Falls should demonstrate design options such as landscaping, to discourage unsafe roadside parking along the highway corridor.

- 7.2.9 The Province of BC should review the relevant provincial legislation regarding the control of roadside parking along provincial highways and on Crown land and implement more effective tools to manage illegal roadside parking, including improved ticketing processes and opportunities for permitted on-road parking areas.

Transit

- 7.2.10 Bus shelter enhancements for BC Transit riders should be provided in a safe and convenient location in Popkum.
- 7.2.11 BC Transit should explore opportunities for shared a bus shelter location in consultation with School District Number 33.

Connected neighbourhood

- 7.2.12 Unused or undeveloped right of ways should be evaluated for use as public trail, community spaces or closure where traffic patterns or adjoining lands are not negatively affected.
- 7.2.13 Comprehensive suburban residential subdivisions with connecting road networks are encouraged, and may require collaboration or land assembly with adjoining parcels.
- 7.2.14 Panhandle or easement access is discouraged for suburban residential subdivision.
- 7.2.15 Alternative or secondary route choices should be provided in new subdivision, where possible.
- 7.2.16 Public trail policies to ensure a connected neighbourhood are provided in Section 8 Parks and Trails.

Pedestrian and cycling

- 7.2.17 Safe crossings for pedestrian and cyclist users of Highway 9 should be evaluated for any significant development within the HIGHWAY COMMERCIAL designated lands in Popkum. Identified pedestrian crossing priorities are illustrated on Schedule 8 – Parks and Trails, Popkum Bridal Falls.
- 7.2.18 Pedestrian and cycling routes should consider design and routing options which create a comfortable and safe user experience by avoiding unsafe areas, avoiding side by side highway traffic and by providing opportunities to integrate into natural areas and provide view corridors.
- 7.2.19 The Regional Board may require that development proposals include a pedestrian movement analysis prepared by a qualified professional to ensure safe and connected pedestrian routes.

- 7.2.20 Upgrades to Yale Road, Popkum Road North to Elgey Roads should include expanded shoulder lanes suitable for pedestrian, cycling and agricultural uses and their connection to Cheam Wetlands Regional Park.
- 7.2.21 Subdivision developments within the West Popkum Linear Trail Network Area as shown on Section X – Parks and Trails, shall provide trails as a condition of subdivision approval.

Provincial Highway 9 and Highway 1

- 7.2.22 Access to new development along Highway 9 should be controlled and limited to the two locations, including one at the Yale Road roundabout.
- 7.2.23 Noise and visual buffers should be considered for new development along the Highway 9 corridor to reduce traffic use impacts to neighbouring private lands.
- 7.2.24 Community consultation should be conducted by the Ministry of Transportation for expansion and upgrades to Highway 9 corridor and Highway 1 interchange.
- 7.2.25 Major developments require a traffic impact assessment to determine regional traffic flows and if improvements to the Highway 1 interchange are necessary.

7.3 Water Supply

Water is an essential need for everyone. Fortunately, Popkum-Bridal Falls has a high-quality drinking water and supply, whether on private well or FVRD service. Drinking water in Electoral Area “D” is obtained from a variety of sources ranging from individual wells, surface water sources, to the large FVRD Area D Integrated Water System which services the majority of residents.

FVRD Area D Integrated Water System

The FVRD water system primarily serves the suburban residential neighbourhoods of Popkum and commercial corridor of Bridal Falls and the neighbouring Cheam First Nation Indian Reserve. In 2017, there were 400 connections to the system. In addition to providing a drinking water source, the FVRD water system provides flows for fire protection in accordance with Fire Underwriters Survey guidelines.

The service area and assets of the FVRD EA “D” Integrated Water Systems is shown on Map 5-Local Service Areas.

FVRD Area D Integrated Water System is a high quality deep well source without the need for primary or secondary disinfection or filtration¹. The water storage site and primary source is located along the Bridal Falls hillside, with two additional well sources at Caryks Road and Sussex Drive. The quality and quantity of the FVRD Area D Integrated Water System is expected to meet anticipated growth over the next 20 years.

The FVRD’s delivery of water system services are guided by a number of key documents including the:

- Sustainable Service Delivery for Community Water Systems: Policies to Guide Service Delivery in FVRD’s Electoral Areas (2010);
- Electoral Area Source Water Protection Assessments (2015); and,
- Electoral Area Water Conservation Regulation (2016).

Private Water Supplies

While most of the community is served by the FVRD community water supply, there are a small number of properties which obtain drinking water through individual, on-site ground or surface sources. In 2017, there were about seven (7) surface water licenses and approximately sixty (60) known groundwater wells for domestic water use in Electoral Area “D”. A number of unlicensed on-site water supplies are expected as well.

Private water supplies occur primarily on larger acreages surrounding the Popkum community core and Bridal Falls corridor. While the FVRD is not aware of any significant water quality or quantity issues, this means for many rural parcels, both potable water and

¹ 2015 FVRD Drinking Water System Annual Report

wastewater discharge occur on the same parcel of land. Therefore, it's important to ensure on-site water supplies are on parcels sufficiently sized to ensure the discharge of stormwater and wastewater does not interfere with water quality.

The FVRD Subdivision and Development Servicing Bylaw sets out levels of service requirements for newly created parcels. The service level requirements in conjunction with zoning and Plan designation parcel size requirements, will ensure that new parcels with onsite water and septic sufficient area of at least 2.0 hectares.

Bylaws, Policies & Regulations

Water supplies and systems within Electoral Area “D” are regulated by local bylaws and policies and by provincial regulations. The following table provides a general overview the key regulations:

FVRD	Province of BC	
<p><i>Subdivision and Development Control Bylaw</i></p> <ul style="list-style-type: none"> applies at time of development (not retroactive) ensures that new development is served by appropriate water supplies, depending on lot size, location and density (number of units) <p><i>OCP and other FVRD policies</i></p> <ul style="list-style-type: none"> guides the development, expansion, operation and management of FVRD water services 	<p><i>Groundwater Protection Regulation²</i></p> <ul style="list-style-type: none"> activities near wells and groundwater are environmentally safe minimum standards and types for: <ul style="list-style-type: none"> well construction, maintenance, deactivation and decommissioning; and, qualified people certified to drill wells, install well pumps and perform related services 	<p><i>Drinking Water Protection Act</i></p> <ul style="list-style-type: none"> applies to all water systems (not than single-family dwellings and systems excluded through the regulation) water suppliers must ensure quality and potable water requires approval of water system construction proposals by public health engineers minimum water treatment standards monitoring/testing of systems; water systems to meet water quality standards public notification of water quality problems prohibits introduction of anything into a domestic water system, well recharge zone or an area adjacent to the drinking water source that could cause a health hazard

² Established under the *Water Sustainability Act*.

Policy

The following policies are intended to ensure new developments are served by an appropriate level of water supply which will be sustainable over the long term. They should be considered alongside the individual land designation policies which identify servicing levels required for subdivision and development.

- 7.3.1 All new commercial developments within the HIGHWAY COMMERCIAL designation shall be serviced by the FVRD Area D Integrated Water System.
- 7.3.2 Subdivisions which create parcels of less than 1 hectare (2.47 acres) shall provide a connection to the FVRD Area D Integrated Water System as established in the *FVRD Subdivision and Development Servicing Bylaw*.
- 7.3.3 Extension to the Area D Integrated Water System shall be paid for by developers who also shall contribute to off-site works in accordance with the Development Cost Charge Bylaw.
- 7.3.4 Water system service delivery, governance, cost recovery, priorities, and acquisition policies are those set out in *Sustainable Service Delivery for Community Water Systems: Policies to Guide Service Delivery in FVRD's Electoral Areas* or as amended by the Regional Board.
- 7.3.5 Expansion of the FVRD Area D Integrated Water System may be considered under the *Sustainable Service Delivery for Community Water Systems: Policies to Guide Service Delivery in FVRD's Electoral Areas* and under the following conditions:
 - a. costs of extending the service boundary are financed exclusively by the new area to be serviced and the cost is sustainable;
 - b. servicing to unconnected parcels within the original service area is not negatively affected;
 - c. the expansion is unlikely to result in subsequent demands or expectations for service in locations where development at serviced densities is not desirable.
 - d. capacity of the water system to supply the added demand, along with any improvement necessary, is determined by a qualified professional engineer;
 - e. no negative water supply source impacts will result;
 - f. the expansion is consistent with the land use objectives and policies of this plan; and,

- 7.3.6 Well head or source protection implementation for the Area D Integrated Water System water system wells should be completed as outlined in the *Electoral Area Source Water Protection Assessments (2015)* report.
- 7.3.7 Provision of safe and reliable water supplies, and the protection of existing water supplies and sources, will be a consideration in all zoning and community plan amendments and in subdivision referrals.
- 7.3.8 For subdivision of parcels less than 8 hectares in area, not served by the FVRD community water system, the *Responsible Authority* should require the developer to provide a report by a professional engineer which confirms the ability of each water supply to provide a suitable quantity of potable water which meets *Guidelines for Canadian Drinking Water Quality*. The report should include:
- a. accurate location sketch of the well or intake (and supply line where applicable);
 - b. well log provided by well driller that is prepared in accordance with accepted standards, or a sketch of the surface water intake;
 - c. pump test and/or quantity test results;
 - d. recovery test results;
 - e. water quality test results from the laboratory;
 - f. certification that the water supply is capable of meeting the quantity requirements year-round and that the water meets the *Guidelines for Canadian Drinking Water Quality*; and,
 - g. in the case of groundwater sources, identify the type of aquifer from which the well will draw water and any implications for drinking water quality and quantity as well as the sustainability of the supply.
- 7.3.9 Applications for zoning and community plan amendments to facilitate new development not served by the FVRD community water system may be required to include a report by a qualified professional engineer. The report should:
- a. provide reasonable rationale and assurances respecting the feasibility and long term suitability of the proposed water supply;
 - b. assess the compatibility of the proposed water supply with other on-site services (such as a sewage disposal field) or nearby services on adjacent lands;

- c. address the cumulative impacts the proposed water supply may have on the source and determine whether the proposed supply will adversely affect existing water supplies drawing from the same source; and,
- d. in the case of groundwater sources, identify the type of aquifer from which the well will draw water and any implications of the aquifer type for drinking water quality and quantity as well as the sustainability of the supply.

7.3.10 Individual, on-site water supplies which rely solely on treatment systems to produce potable water that meets the *Guidelines for Canadian Drinking Water Quality* are strongly discouraged and should be avoided for new subdivision and development.

7.3.11 All owners of water supplies are strongly encouraged to implement source control measures to prevent contamination of water sources and supply systems.

7.3.12 In accordance with the *Ground Water Protection Regulation*, landowners are strongly encouraged to:

- a. promptly deactivate or close unused wells to prevent contamination of the aquifer; and,
- b. flood-proof wells in locations subject to potential flood flows.

7.4 Sewage Disposal

Popkum – Bridal Falls is served by a combination of sanitary treatment options ranging from shared or private treatment systems regulated by the Ministry of Environment to individual on-site septic systems with reserve back up.

The policies of the plan support creation of a new Popkum community sanitary sewer system. The creation a publicly owned sanitary sewer system to serve all the West Popkum community would facilitate future growth, while ensuring an efficient and high quality system. Remaining rural areas of Popkum-Bridal Falls would remain with individual on-site service levels.

Transition to Sanitary Sewer

In recent years, there have been several residential developments with FVRD sanitary sewer service and community water service. Demand for smaller lot developments is increasing in West Popkum and highlights the need for a comprehensive strategy for the sanitary sewer service area.

Ensuring an efficient sanitary sewer service that avoids a an ad-hoc collection of individual systems with a network of overlapping service lines is critical to the long term operational efficiency and financial viability. Plan policy supports three service nodes that recognize the (a) newly established sewer system at the former Minter Gardens, (b) a future central sewer service node, and (c) flexible options to provide on-site or FVRD sewage system connectiofor lands along the Highway 9 corridor.

The sanitary service would serve new suburban residential growth, connect existing lots once septic replacement as necessary, and serve commercial developments as needed. To ensure a high quality treatment standard, operational efficiency and oversight, the system would be publicly owned and operated to a Class “A” standard³.

Development of the system is a significant infrastructure project which requires community support, potential partnership, and co-ordination with the land developers. Establishing a system will be a mulit-year process. In the meantime, ensuring higher density development proceeds with a plan for sanitary service is an objective of the OCP. Plan policies only support increased density-suburban residential growth in areas with a publicly owned sanitary sewer system.

³ Class “A” is defined by the *Municipal Wastewater Regulation, Environmental Management Act*, Province of BC.

The FVRD Regional Board has adopted two key policies to guide sanitary sewer development and expansion in West Popkum:

- *FVRD Sustainable Sanitary Sewer Service Provision – Policies to Guide Service Delivery in Electoral Areas of the FVRD*, which outlines objectives to :
 - ensure community sewer systems are effectively managed;
 - prioritize recommended upgrades and initiatives related to FVRD sewer service provision;
 - guide sewer service provision through the acquisition of new and existing community sewer systems;
 - regulate on-site individual sewer systems; and,
 - guide the review of the sewer servicing component of development applications.
- *West Popkum Local Sanitary Servicing Plan*⁴, which provided options for the future ownership and acquisition of the West Popkum Utilities sewer system.

Growth Expectations

The Plan policies provide flexibility in development and, as a result, various development scenarios with different unit totals are possible. As SUBURBAN RESIDENTIAL designated lands are developed or redeveloped for residential uses, the total number of people in West Popkum will increase over the life of this Plan from 1529 people⁵ to about nearly 2000 people by 2031. These figures are based on the average of 13-20 homes constructed per year, and the average 2.8 persons per household size for Popkum-Bridal Falls⁶. The above figures are provided for broad planning purposes only.

Evolving and Current Sanitary Systems

Sanitary sewer service is currently provided to 41 lots⁷ in West Popkum by the privately owned West Popkum Utilities system, a Class “D” system. A planned FVRD Class “A” sanitary sewer system located on the former Minter Gardens site west of Llanberis Way has the capacity to service up to a maximum of 240 units. Remaining developed properties are served by individual on-site septic with designated reserve field areas or land sufficient land to septic replacement.

CURRENT SANITARY SYSTEMS			
System Name	Servicing Capacity (units)	Treatment Class	Ownership
West Popkum Utilities	41 units	Class “D”	Privately owned and operated
Minter Gardens System (under development)	240 units (potential to service)	Class “A”	FVRD owned and operated

⁵ Statistics Canada, 2016 Census.

⁶ Statistics Canada, 2016 Census.

⁷ West Popkum Local Sanitary Servicing, Urban Systems, April 8, 2016

Cost

The cost of community sewer service provision will be borne equally by all those who benefit from the service. It is anticipated that the cost of expanding the community sewer service will be paid by the developers in the form of Development Cost Charges (DCCs) and latecomers agreements for subsequent connections. A financial plan will be necessary to identify appropriate DCC for West Popkum sewer.

Future Service Nodes

Figure 1–Sanitary Sewer Servicing Nodes illustrates potential service nodes for West Popkum that ensuring efficient distribution of capacity, long term viability, fairness, certainty and flexibility for growth are considerations in the FVRD Sewer Servicing Policies, which support the following objectives:

1. Identification of FVRD Community Sewer Service Nodes/Areas to ensure future development and connection to the FVRD sanitary sewer system is efficient and provides certainty for the community and developers.
2. Support FVRD ownership, operation and maintenance of existing and future community sanitary systems to a Class “A” standard⁸.
3. Ensure sewer service is planned for designated growth areas in the community and for those areas in need due to environmental concerns.
4. Minimize the cost of sewer service to existing residents by developing efficiencies in the management of the system and economies of scale by supporting a long-term community system.
5. Minimize impacts to adjacent land uses from sanitary treatment facility.
6. Minimize the impact on the natural environment during service extension and construction.
7. Ensure community sewer service extension does not compromise rural character.
8. Avoid impacts to the FVRD Community Water supply source.

Policy

The following policies are intended to ensure new developments is served by an appropriate level of sewer service which will be sustainable over the long term. They should be considered alongside the individual land designation policies and the FVRD Subdivision and Servicing Bylaw when identifying servicing levels required for subdivision and development.

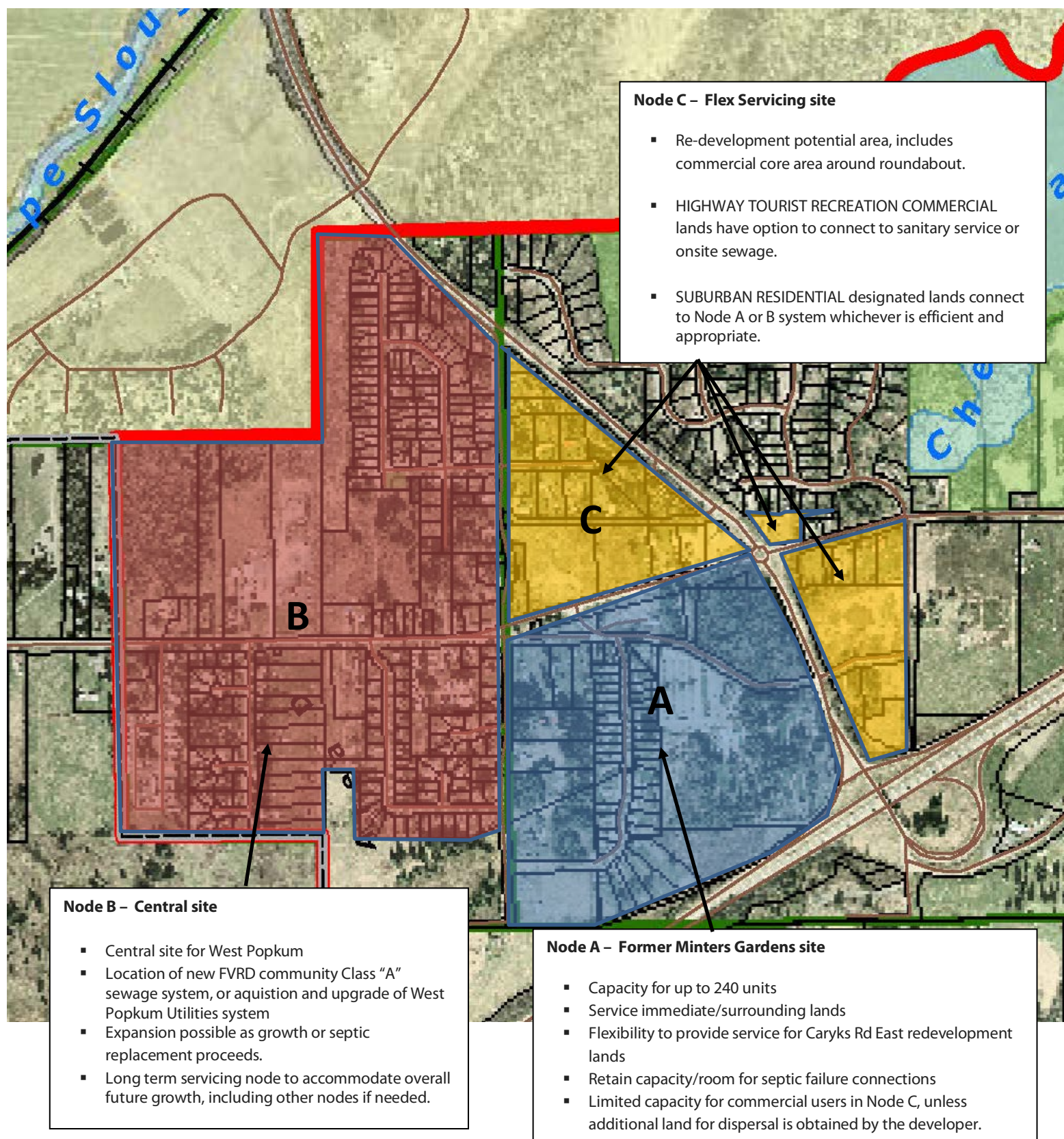
⁸ Class “A” is defined by the *Municipal Wastewater Regulation, Environmental Management Act*, Province of BC.

- 7.4.1 All new subdivision developments within the SUBURBAN RESIDENTIAL designation shall be serviced by a Class “A” sanitary sewer system owned and operated by the FVRD, in accordance with Figure 1 –Sanitary Sewer Servicing Nodes.
- 7.4.2 All new SUBURBAN RESIDENTIAL developments adjacent to existing or proposed sanitary sewage treatment or disposal sites shall provide mitigation to prevent impacts by noise, sight and smell from sanitary treatment facility.
- 7.4.3 Establishment and extension of the FVRD sanitary sewer system will be paid for by developers who also shall contribute to off-site works in accordance with the Development Cost Charge Bylaw.
- 7.4.4 Applications for zoning and community plan amendments to facilitate new development with onsite sewer in the HIGHWAY TOURIST RECREATION COMMERCIAL designated lands may be required to include a report by a qualified professional engineer. The report should:
- a. provide reasonable rationale and assurances respecting the feasibility and long term suitability of the proposed sewage treatment;
 - b. assess the compatibility of the proposed onsite sewage supply with other on-site services (such as a stormwater management) or nearby services on adjacent lands;
 - c. address the cumulative impacts the proposed sewage treatment may have on the nearby water sources and determine whether the proposed supply will adversely affect existing water supplies; and,
 - d. identify any operation and maintainance requirements for the property owner in order to ensure long term sustainability of the system.
- 7.4.5 Provision of a sanitary sewer services is guided by the *FVRD Sustainable Sanitary Sewer Service Provision – Policies to Guide Service Delivery in Electoral Areas of the FVRD*, as updated from time to time.
- 7.4.6 West Popkum Utilities (WPU) class “D” sanitary service connections is limited to 41 units located in the area north of Yale Road and east of 52405 Yale Road⁹, subject to reconsideration should the FVRD acquire and upgrade the WPU to a class “A” public system.
- 7.4.7 Acquisition and upgrading for the existing West Popkum Utilities system is guided by the *West Popkum Local Sanitary Sewer Plan (LSSP)*.

⁹ West Popkum Utilities service area received variance to the *FVRD Sustainable Sanitary Sewer Service Provision – Policies to Guide Service Delivery in Electoral Areas of the FVRD* at the March 22, 2016 FVRD Regional Board meeting.

- 7.4.8 Provision of reliable on-site sewer service will be evaluated to ensure it is practical, well managed, and financially sustainable in all zoning and community plan amendments and in subdivision referrals.
- 7.4.9 Sewer service expansion for existing lots may be considered by the FVRD Regional Board when there is evidence that an existing sewage disposal system has failed, an ensuing health problem is evident and/or there is no alternative means of resolving the disposal problem through on-site measures, including pump and haul, to address environmental or health concerns.
- 7.4.10 Septic maintenance is the responsibility of business owners, residents and property owners. The FVRD Septic Sense program provides practical guidance for septic system care and maintenance, including inspections, daily use activities.
- 7.4.11 Pump and haul services or holding tank services for the removal of wastewater shall only be supported where an existing system has failed and/or where there is no alternative means of resolving the treatment problem through on-site measures for existing developed lots. Pump and haul services are not supported for new development, except potentially as a short-term temporary measure.
- 7.4.12 Avoid environmental impact where possible by locating community sewer service infrastructure in a manner that avoids the disturbance of environmentally sensitive areas and poses no significant negative impact on the environment.

Figure 1- Sanitary Sewer Servicing Nodes



7.5 Stormwater

Stormwater is created when land alterations change the pre-existing water balance. When vegetation and soils are replaced with roads and buildings, less rainfall infiltrates into the ground, less is taken up by vegetation, and more becomes surface runoff.¹⁰ Rural development, particularly the construction of impervious surfaces and land clearing, may increase stormwater flows and negatively impact streams, groundwater reservoirs and down-slope properties.

Even relatively low levels of impervious cover can produce significant and often irreversible impacts on streams and aquatic resources.¹¹ Stormwater begins to have a negative impact on streams when the amount of impervious surface in a watershed equals as little as ten percent of the watershed area.¹² Parcel size is also an important indicator. Most residential developments with densities greater than one parcel per hectare will exceed 10% impervious area and alter drainage regimes.¹³

As a result, best management practices are needed at densities greater than one parcel per hectare, and where impervious cover may exceed 10% of the watershed area, to avoid:

- damage to aquatic environments;
- public expense for unplanned infrastructure; and,
- possible flood damage associated with increased runoff.

The policies below outline expectations for stormwater management for new developments and encourage landowners to develop and manage existing properties with stormwater in mind.

Policy

- 7.5.1 Post-development stormwater flows should maintain natural flow patterns and water quality of receiving waters.
- 7.5.2 Foundation, roof drainage and other surface drainage should be disposed of on-site, returned to ground, and not be connected to collector systems for roads. The use of bio-swales, ponds, French-drains, rain barrels and other means of detaining and infiltrating stormwater on-site are encouraged.

¹⁰ Ministry of Land, Water & Air Protection. *Stormwater Planning: A Guidebook for British Columbia*. May, 2002.

¹¹ Center for Watershed Protection. *Site Planning for Urban Stream Protection*. 1995

¹² This is a generally accepted threshold. For a British Columbia source, see: Ministry of Land, Water & Air Protection. *Stormwater Planning: A Guidebook for British Columbia*. May, 2002. A Washington State example is: Derek Booth. *Forest Cover, Impervious-Surface Area, and the Mitigation of Urbanization Impacts in King County*, Washington. September, 2000.

¹³ Ministry of Land, Water & Air Protection. *Stormwater Planning: A Guidebook for British Columbia*. May, 2002.

- 7.5.3 Applications for zoning and community plan amendments to facilitate new developments at densities of one parcel per hectare or greater, or for commercial developments, should include a stormwater management plan prepared by a professional engineer to:
- a. ensure post-development storm water flow volumes will not exceed predevelopment flow volumes in receiving waters;
 - b. maintain, to the extent possible, predevelopment flow patterns and velocities;
 - c. provide conveyance routes for major storms;
 - d. demonstrate the use of best practices;
 - e. certify that water quality of receiving surface and ground waters will not be negatively affected by stormwater surface run-off during and post development; and,
 - f. certify, where applicable, that there will be no negative effect on neighbouring properties.
- 7.5.4 Stormwater management plans should design for:
- a. rainfall capture for minor storms (a 10 year return period rainstorm);
 - b. runoff control for major storms (a 100 year return period rainstorm); and,
 - c. where appropriate, flood risk management for extreme events and peak flow conveyance.
- 7.5.5 Where possible, landowners are encouraged to limit impervious surfaces- which include buildings, pavement and any surface through which water cannot pass – to 10% of the total lot area for large parcels and 25% or less of the total property area for smaller parcels. The use of aggregate, porous pavement, pavers, and similar materials is encouraged for driveways, patios and other surfaces that are often constructed of impervious materials.

7.6 Solid Waste Management

Waste Reduction

Waste reduction targets and management in the FVRD are governed by and implemented through the [FVRD Solid Waste Management Plan](#) which was approved by the Ministry of Environment in late 2015. It contains a number of milestones to further waste diversion in the region and help reduce the amount of waste going to landfill:

- 65% reduction in the residential waste by the year 2018; and,
- 90% waste diversion rate by the year 2025.

Waste collection in Popkum-Bridal Falls is individually arranged by residents and business owners who either use private haulers or take their garbage, recyclables and compostable waste directly to the Bailey Landfill in the City of Chilliwack. Wood and yard waste may also be dropped off at the Parr Road Green Depot (City of Chilliwack) for transport to a central composting facility for processing.

New developments – make space for the bins.

In order to meet progressive waste diversion targets, new developments must ensure that there is adequate room reserved in development plans for the provision/placement of solid waste bins, recycling bins and food waste bins. In the near future, recycling and compostable waste collection will be mandatory and therefore new developments should attempt to incorporate space for this provision into their development plans. As all residents/businesses in EA D must arrange for their own garbage services through private contractor it is particularly important that adequate space is provided for a full range of waste diversion bins.

Illegal Dumping

Illegal dumping of garbage is a hazard, regardless whether from residential uses, construction waste, stolen vehicles and other materials. Dumping presents an environmental hazard and degrades the aesthetic and recreational experience of the area. The FVRD encourages any incidents of illegal dumping to be reported to the Report All Poachers and Polluters (RAPP) hotline – 1-877-952-RAPP (7277) which is a toll free number. Reported information is logged and referred to the appropriate agency or organization for clean-up. The hotline supports public outreach and tracks dumping activities and patterns over time to assist with prevention efforts.

Wildlife and Waste

Popkum-Bridal Falls is located at the edge of the crown forest and Fraser River, where there are high wildlife populations. Landowners must ensure that waste containers are not accessible to wildlife. The FVRD Parks Department offers a Bear Aware program to assist residents and business owners in minimizing bear interactions and with the proper management of garbage bins to avoid bear/human conflicts.

This Official Community Plan supports the FVRD Solid Waste Management Plan which should be consulted for detailed guidance respecting waste management, composting, recycling and waste reduction.

Policy

- 7.6.1 Access to recycling, composting and disposal facilities should be ensured:
- a. new developments shall ensure that there is adequate room reserved in development plans for the provision/placement of garbage bins, recycling bins and compostable waste bins; and,
 - b. the Responsible Authorities are strongly encouraged to provide adequate waste and recycling bins provided at recreational sites.
- 7.6.2 Residents are encouraged to adopt as their own the targets of the FVRD Solid Waste Management Plan to divert 90% of waste from disposal by the year 2025.
- 7.6.3 Residents and business owners should ensure that garbage and waste containers are secured and not accessible by wildlife.
- 7.6.4 Residents are encouraged to avoid the burning of garbage and wastes which results in reduced air quality and emissions of fine particulates which may pose a health hazard.
- 7.6.5 The Regional District will encourage citizen efforts to clean up dumped material and monitor for illegal dumping. As opportunities and resources permit, the Regional District will support voluntary community clean-up efforts particularly to assist with tipping fees.
- 7.6.6 The Regional District will work with Provincial ministries, Royal Canadian Mounted Police, Insurance Corporation of BC, and appropriate organizations to combat the dumping of stolen vehicles and solid waste.
- 7.6.7 By the year 2025, waste from Electoral Area “D” should be reduced in accordance with the targets in the *FVRD Solid Waste Management Plan*.

7.7 Utilities & Communication Services

All services including, residential electricity, gas, cable, cellular and high-speed internet services and telephone service are broadly available within the Plan area. Portions of Popkum-Bridal Falls have intermittent cellular coverage, particularly indoor coverage. Cellular coverage is an important daily service for the safety and convenience of those living, traveling or working in the Plan area. Improvements to the cellular coverage range and provider choice were concerns identified by residents.

Policies

- 7.7.1 **Internet and cellular services for residents.** The Regional Board will advocate and support improvements to existing cellular coverage and opportunities for expansion where services to local residents is a first priority. for the provision of high speed internet services.
- 7.7.2 **Minimize visual impact.** Utilities and cellular tower infrastructure shall be designed and situated in a location which reduces visual impacts on neighbouring businesses and residents.
- 7.7.3 **Serviced new development.** All development should be coordinated with, and provision will be made for, essential community services such as electrical, natural gas, telephone and cablevision servicing, at levels appropriate to the proposed development.
- 7.7.4 **Co-location requirement.** Cellular towers and telecommunication facilities should provide future co-location and expansion opportunities in order to reduce the overall number of towers in the community.
- 7.7.5 **Community consultation.** New utility and cellular developments should undertake community engagement early in the project to obtain and address community input.
- 7.7.6 **Telecommunications policy.** The Regional District should develop a telecommunications policy to guide the assessment, consultation, design, and siting of new telecommunicaions projects.

7.8 Protective Services

Fire Protection Services

Popkum-Bridal Falls is served by a group of committed and highly trained volunteer fire department members. Located at 10570 Yale Road East in East Popkum, the Popkum Volunteer Fire Department serves all of Electoral Area “D” including incidents along Highway No. 1 and Highway No. 9.

Fire response is coordinated and dispatched through the E-911 system. Fire service areas and the location of fire halls are shown on Map 5 - Local Service Areas.

Fire protection requirements for new development are determined under the BC Building Code and the BC Fire Code. The fire response time is an important consideration in the BC Building Code (BCBC). The BCBC establishes a ten minute response time threshold. Buildings that are proposed to be constructed in areas that are located outside of a 10 minute fire response area from the fire hall will be subject to increased building setback requirements.

The FVRD uses the Fire Underwriters Survey guidelines regarding the design of water systems that provide flows for fire protection. The FVRD Integrated Water Supply provides fire flow in developed suburban residential, commercial and resort areas of Popkum-Bridal Falls.

Overall the community is served by an efficient highway and local road network that ensures accessibility. These services along with a well trained, resourced and effective fire department have positioned Popkum-Bridal Falls in a favourable course to accommodate additional growth while ensuring public safety.

E911 Services – Police and Ambulance

The Plan area receives ambulance, police and fire services through E-911 operations. Police services are provided by the Royal Canadian Mounted Police from the Agassiz Detachment. Ambulances are dispatched from Chilliwack. Response times for emergency services are consistent with rural areas, however Popkum-Bridal Falls is fortunate to receive backup service from nearby Chilliwack when either police or ambulance services are engaged.

Emergency Management

In British Columbia, local governments are responsible for providing the initial response to most emergencies that occur within their boundaries. The FVRD Emergency Plan complies with the British Columbia Emergency Response Management System (BCERMS) to ensure coordinated and organized response to emergencies in the form of a standardized response structure. During emergency response and recovery operations, FVRD is responsible for:

- Notifying those who may suffer loss or may be harmed by an emergency or impending disaster;
- Coordinating the provision of food, clothing, shelter, and transportation services;
- Establishing the priority for restoring essential services provided by the Regional District;
- and,

- Recommending to service providers the priorities for restoring essential services not provided by the Regional District.

The objectives (in order of priority) of any response are to:

- Provide for the safety and health of all responders
- Save lives
- Reduce suffering
- Protect public health
- Protect government infrastructure
- Protect property
- Protect the environment
- Reduce economic and social losses

The following policies are intended to provide general information for residents and property owners concerning various emergency services and level of protection in Electoral Area “D” as well as providing guidance to the Regional Board when land use proposals are located in areas of potential wildfires. Actions are guided by the *FVRD Emergency Response & Recovery Plan*.

Policy

- 7.8.1 **Citizens watch groups.** The Regional Board encourages Neighbourhood Watch, Block Watch, Citizens on Patrol and similar programs within the community.
- 7.8.2 **Major developments require fire protection report.** The Regional Board may require re-zoning or official community plan amendment applications involving assembly or commercial or resort uses be supported by a fire protection engineering report. Local volunteer fire departments and/or the manager of fire protection should provide comments concerning the local fire department’s ability to provide adequate fire protection, response times and overall capacity of the fire department to protect multi-unit residential developments.
- 7.8.3 **Fire department needs assessment.** Regular review of the fire department capacity, equipment and resource needs should be undertaken to ensure the ability to protect development over time, in particular large developments; and where necessary identify funding mechanisms for upgrading fire equipment and other fire department needs to keep pace with development expectations.
- 7.8.4 **Limit development in unserviced areas.** Lands outside of fire protection service areas, such as Crown lands or lands without public fire protection, should generally remain at low rural development densities.

8.0 PARKS AND TRAILS



8.1 Overview

The natural setting of Popkum-Bridal Falls provides outdoor recreation opportunities from formal trails and parks to crown lands surrounding the community. These natural amenities draw residents and visitors alike, and define the rural-natural character of the community.

Development and growth of Popkum-Bridal Falls brings new opportunities to expand trail opportunities and provide connections to the numerous parks in the community. Residents have expressed a vision for a connected and active community offering parks and trail opportunities to experience nature, recreation and active living, and facilitate community interaction.

In order to provide for existing and future residents, the policies in this section describe a trail concept for Popkum-Bridal Falls, and identify significant sites and corridors of interest for the future expansion. This includes:

- acquisition of future community park and trails ;
- investment of community park funds (cash-in lieu) from subdivision development; and,
- sites of interest for future parks and trails in Popkum-Bridal Falls.



Cheam Lake Wetlands Regional Park

Established in the 1990's, Cheam Wetlands is a 107 hectare (265 acre) natural area park, featuring lake, marsh and forested areas. Amenities and activities in the park include walkways, picnic areas and interpretive signage and programs. Opportunities for park growth include lands along the south of the lake to enhance and protect remaining areas of foreshore and forested areas.

8.2 A Community of Parks

With 162 hectares (400 acres) of formal park land that includes; two Provincial Parks, a regional park, three community parks and a growing local trail network, Popkum-Bridal Falls has an abundance of outdoor recreation options to choose from. These parks provide a wide variety of amenities including playgrounds, walking paths, and natural spaces.

The National Parks and Recreation Association (NPRA) Level of Service Standards guidelines for the amount, size and location of near to home parkland is 4 ha of parkland per 1,000 people, plus an additional 4 ha of natural area per 1,000 people. Popkum-Bridal Falls exceeds these standards by offering 106 hectares per 1000 people, creating an exceptional community of parks.

Table 2. Current Parks and Trails				
Name	Type	Area	Tenure	Use
Community Parks and Trails				
Shannon Community Park	Tot Lot	.11 ha	FVRD owned	Playground
Parkrose Community Park	Tot Lot	.11 ha	FVRD owned	Playground
Popkum Linear Trail	Linear Trail	3.1 km+	FVRD managed	Walking trails
Thompson Park	Active Park	0.16 ha	FVRD owned	Playground
Regional Parks and Trails				
Cheam Wetlands Regional Park	Natural Area	107.12 ha	FVRD/Nature Trust/Crown Land	Wildlife viewing, birding, walking Interpretive programs.
Provincial Parks				
Ferry Island Provincial Park	Natural Recreation Area	29 ha	BC Parks	Fraser River foreshore undeveloped.
Bridal Veil Falls Provincial Park	Natural Recreation Area	32 ha	BC Parks	Hiking, walking, wildlife viewing.

Table 3. Park Classifications





Park Classifications	
Tot lot	Small community parks with the primary purpose of providing local children with a place to play. A playground is the primary amenity. Benches and picnic tables may also be included.
Neighbourhood Parks	Small public parks that offer access to open space for passive use such as picnicking, resting, and walking. Neighbourhood parks could also include a playground. Amenities could include trails, picnic tables, garbage cans, etc.
Active Parks	Medium-sized parks that offer opportunities for more active recreation, including organized sports. Park amenities may include athletic fields, playgrounds and programming.
Special Interest Sites	Special interest sites may vary in size, but are established to highlight important historical, cultural, ecological, or geological points of interest in the community.
Linear trails/greenways	Linear Trails or Greenways are long, narrow stretches of parkland or greenspace designated for recreational uses such as walking or biking. They often act as pedestrian linkages between neighbourhoods, parks, or communities. Greenways can include a variety of trail types, from narrow dirt paths to sidewalks, or gravel trails under hydro line ROW's.
Regional Parks	Regional parks and trails provide benefit and enjoyment to residents and visitors across the Fraser Valley. The Regional Parks are generally considered to have three functions: to protect the natural landscape, to complement municipal recreation areas and to contribute to open space and greenways connections. Each park has regional significance, whether recreational, ecological or cultural.



8.3 Trails and Greenways

While park space is significant in Popkum-Bridal Falls, trail connections to each park are fragmented. Ensuring trail connections between parks is a key component of the Plan. Building the trail network over time requires several components as shown on Schedule 8 – Parks and Trails. There is a range of options that can be applied to create the trail network depending on whether it's a local trail, a road crossing or significant corridor.

Table 4. Trail and Pedestrian Crossing Classifications

Neighbourhood Linear Trail		Pedestrian Crossings	Significant Corridors
			
New Development	Existing Development		
<p>Connect Popkum suburban residential neighbourhood with local pedestrian trails throughout.</p> <p>Opportunities for the expanded linear trail:</p> <ul style="list-style-type: none"> ▪ <u>New development</u> provides trail segments as development occurs with sidewalk or compacted trail materials, as appropriate. ▪ <u>Existing development</u> (where new subdivision is not anticipated). Retrofit existing road right of ways with marked line corridors on existing right of way corridors. 		<p>Improve pedestrian safety and sense of safety when crossing major highway routes.</p> <p>Priority crossings:</p> <ul style="list-style-type: none"> ▪ Yale Road, west of Highway #9 intersection. North-south crossing; and ▪ Highway #9 to connect east and west Popkum. 	<p>Connects local neighbourhoods and regional communities to parks and outdoor recreation areas.</p> <p>Routes generally include wilderness trails, utility corridors, rights of way or highway corridors.</p>

8.4 Opportunities for the Future

Popkum-Bridal Falls is a community of parks and trails with opportunities for future expansion with support from development, partnerships or grants opportunities. Funding the growth and long term viability of expansion is critical to a sustainable park system. Strategic acquisition of park land and allocation of parkland dedication funding is critical. Plan policies support the strategic and financial supported approach to expansion.

Residents and stakeholders have identified a number of expansion opportunities and sites of interest for expansion. The table below references Schedule 8 – Parks and Trails, and summarizes areas of potential parks and trails:

Table 5. Expansion Opportunities and Sites of Interest	
Popkum	<p>Neighbourhood Linear Trail. Continued expansion of existing linear trail network to connect Popkum suburban residential neighbourhood with local pedestrian trails.</p> <p>Pedestrian Crossings between; (1) Yale Rd west of roundabout – north to south; and, Highway #9 – east to west to connect East and West Popkum.</p> <p>Significant corridors to connect neighbourhoods and park areas.</p>
Cheam Lake Wetlands Expansion	Park connection between Cheam Wetlands Regional Park and Fraser River foreshore.
Bridal Falls	Lands adjacent to Bridal Veil Falls Provincial Park under License of Occupation tenure (File No. 2405922).
Fraser River	<p>Pedestrian access to crown lands along Fraser River under Notation of Interest (File No. 2406153) adjacent to from 11180 Popkum Rd North (pedestrian) via existing statutory right of way and future potential connection to Cheam Wetlands Regional Park.</p> <p>Boat launch – location to be determined.</p> <p>Experience the Fraser – significant corridor to provide connection between City of Chilliwack and District of Hope segment.</p>
Eastern Hillside	Significant corridor from City of Chilliwack Eastern Hillside to Bridal Veil Falls Provincial Park.
Mount Cheam	North slope access and staging area to Mt. Cheam via de-activated Bridal Falls Forest Service Road (FSR).

Policy

Community Parks and Trails

- 8.4.1 **Popkum Neighbourhood Linear Trail expansion through subdivision.** Popkum neighbourhood linear trails should be expanded at the time of subdivision within the *Linear Trail Area* as shown on Schedule 8 – Parks and Trails. However it is recognized that upon detailed investigation some trail segments or community parks may prove infeasible or undesirable and therefore would not be developed.
- 8.4.2 **Options for park and trail acquisition.** Acquisition of lands for community parks and trails identified on Schedule 8 – Parks and Trails are expected to be obtained through:
- a. Park dedication or cash-in-lieu at the time of subdivision pursuant to the dedication of park land provisions of the *Local Government Act*;
 - b. Negotiate access to land for trails and parks through private, public and utility right of ways;
 - c. Road Use Permits from the Ministry of Transportation and Infrastructure (MOTI); and;
 - d. Application for use of Crown land; and,
 - e. Partnerships.
- 8.4.3 **Potential park site.** Community park acquisition priorities for Popkum-Bridal Falls include those identified on Schedule 8 – Parks and Trails. However, the Regional Board may accept park dedication in any location within the Plan area that the Regional Board deems suitable for park purposes.
- 8.4.4 **Pedestrian crossing and safety.** Pedestrian crossing(s) to connect the linear trail network and ensure pedestrian safety within Popkum are a priority, specifically including:
- i. Yale Road north-south corridor, between the Highway 9 intersection and City of Chilliwack boundary;
 - ii. Highway 9 connecting West and East Popkum residential and commercial land uses;
- 8.4.5 **Trails within right of ways.** Expanded linear trail and pedestrian crossings involving public right-of-way lands should be developed in co-operation with the Ministry of Transportation and Infrastructure to identify a safe location, design and financial viability.

- 8.4.6 **Wayfinding signage.** Linear trail routes and crossing should include signage to inform users of route wayfinding, and alert users to use caution when crossing Yale Road and Highway #9.
- 8.4.7 **Flexible opportunities.** Land for trails and proposed community parks should be secured as opportunities arise, including but not limited to development proposals for subdivision and zoning amendment, and partnership/grant funding.
- 8.4.8 **Evaluation of parkland opportunities.** Community park and trail proposals involving the following may be considered by the Regional Board:
- i. partnerships for funding and ongoing maintenance;
 - ii. lands with unique natural features, distinctive landscapes or outdoor recreation potential;
 - iii. facilities for outdoor activities for youth; and
 - iv. existing community facilities and sites.
- 8.4.9 **Community consultation.** The development of a new community park and trails should include opportunities for community consultation to ensure information sharing, design input, and park user needs.
- 8.4.10 **Financial and operational viability.** Expanded services funded by the Electoral Area “D” Community Parks Service Area should be designed in consultation with the FVRD Parks Department to ensure a financially viable operations and maintenance program.
- 8.4.11 **Partnerships.** Opportunities for partnership with the Province of British Columbia, local community groups and First Nations should be explored for the development and operation of parks and trails.



*Sto:lo Nation interpretative sign
Cheam Lake Wetland Regional Park (2009)*

8.4.12 **Native plants.** Landscaping of any community park or trail should use native plant species to the extent feasible.

8.4.13 **5% park land dedication.**

- a. Standard requirement. New subdivisions requiring the dedication of parkland under Section 510 of the *Local Government Act* shall provide parkland in an amount of not less than five (5) percent of the land being subdivided or an equivalent value.
- b. Reduction. Notwithstanding Section 8.4.13 (a) (above), the Regional Board may consider accepting an area of land less than five (5) percent of the land being subdivided where improvements acceptable to the Regional Board have been made to provide park infrastructure on dedicated park lands.
- c. Additional dedication. Where a developer wishes to dedicate an amount of park land in excess of five (5) percent of the land proposed for subdivision, the Regional Board may consider a minor reduction in the minimum parcel size for subdivision, subject to the approval of the Responsible Authority, provided that the excess does not include lands that would otherwise be conserved through other means.
- d. Cash in lieu. Notwithstanding Section 8.4.13 (a), the Regional Park may elect, at the discretion of the FVRD Regional Board, to require cash-in-lieu of park land dedication pursuant to Section 510 of the *Local Government Act*, or a combination of land and cash-in-lieu.

Regional Parks and Trails Policies

8.4.14 **Regional Parks Strategic Plan.** Regional Park planning, development and management policies are established by the Regional Board in Regional Parks Strategic Plan 2014-2024, or documents thereafter;

- a. lands with regional significance;
- b. recreational opportunities;
- c. ecosystem protection; and,
- d. feasibility.

8.4.15 **Community Consultation.** Notwithstanding policy 8.4.14 (above), the Regional Board should consider the following matters in their management, planning and development of Regional Parks in Popkum-Bridal Falls”:

- a. consultation with Popkum-Bridal Falls residents;
- b. sites of interest for potential Regional Parks as identified in Table 5 - Expansion Opportunities and Sites of Interest;
- c. local and regional partnership opportunities with stakeholders and community groups including the Cheam First Nation should be explored where feasible opportunities exist;

8.4.16 **Cheam Lake Wetlands Regional Park.** The expansion of Cheam Lake Wetlands Regional Park should be addressed through a land acquisition policies and a Park Management Plan to identify strategic lands for the park.

8.4.17 **Fraser River access.** The acquisition and maintenance of park land and recreational access to the Fraser River will be encouraged and supported by the Regional Board.

8.4.18 **Bridal Veil Falls Provincial Park.** The Regional Board should advocate that BC Parks extend the operating season for Bridal Veil Falls Provincial Park.

An aerial photograph of a dense forest. The trees are mostly green, with some yellow and orange foliage scattered throughout, suggesting autumn. A small waterfall is visible in the lower-left quadrant of the image. A blue semi-transparent banner is overlaid across the middle of the image, containing the section header.

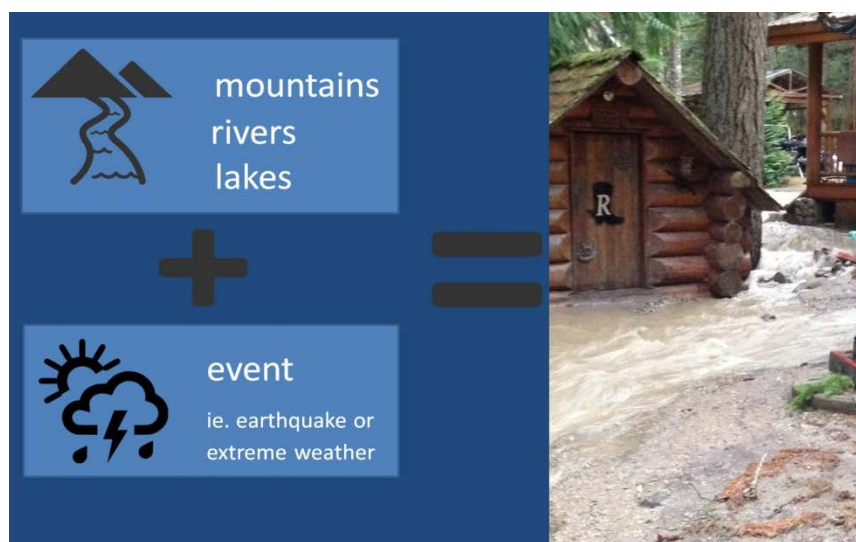
9.0 HAZARD AND RISK MANAGEMENT

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9.1 Overview

Popkum - Bridal Falls is well known for the iconic slopes of Mount Cheam, the mighty Fraser River, along with numerous mountain creeks. The area geology, forest cover, topography and location in proximity to nature exposes Bridal Falls and Popkum to a number of natural hazards. This means when severe weather, fire or seismic (earthquake) events occur, our mountains with their steep slopes and creeks can become active. It creates a real risk for wildfire or geohazard events such as rock fall, sediment flood, alluvial fan, debris slide, debris flow/flood, snow avalanche, flooding, landslide, and river erosion in Popkum – Bridal Falls. These geohazards area significant constraint to development within the Plan area.

The Fraser Valley Regional District (FVRD) works to proactively to plan safe development, by avoiding and managing risk areas, and ensure an appropriate response measures are there in case an event occurs. When creating new communities or growth areas, the FVRD identifies safe areas where people and their investments (ie. home, business, roads, etc) can safely grow and prosper for generations to come.



Plan policies balance risk and development. The *Local Government Act* requires that official community plans contain statements and map designations respecting restrictions on the use of land that is subject to hazardous conditions. As well, Section 56 of the *Community Charter* requires that if a building inspector considers that construction would be on land that is subject to, or is likely to be subject to, flooding, mud flows, debris flows, debris torrents, erosion, land slip, rock falls, subsidence or avalanche, the building inspector may require the owner of land to provide the building inspector with a report certified by a qualified professional that the land may be used safely for the use intended.

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Balancing Risk and Growth in Popkum - Bridal Falls Rock Avalanche Assessment Area



This map is for illustrative purposes only. Please refer to Map 2 for detailed geohazard property information.

9.2 Geologic and Stream Hazards

The Mount Cheam slopes and numerous streams that cross the landscape on their journey to the Fraser River have historically shaped and influenced land use in Popkum-Bridal Falls. The greatest of these influences was the ancient Cheam rock avalanche, which occurred over 5000 years ago, and is the largest known catastrophic landslide in western Canada¹. The landslide created an area elevated above the Fraser River floodplain which is modern day Popkum. In Bridal Falls, debris flows and snow avalanches are common along steep streams flowing into the river from adjacent mountain slopes².

The visibly apparent and frequent hazard events along the Bridal Falls corridor have informed both the Province of British Columbia and the FVRD of the sensitive geotechnical conditions in the area. Accordingly, careful attention to managing geohazard risks and development has been a focus since the late 1970's, when the Ministry of Environment completed mapping of the area that identified landslide, debris torrent, and debris flood hazards³. Subsequent professional engineering and geoscience studies over the years have provided updated advice to ensure development is safe by either avoiding or managing hazards risk (ie. mitigation).

As part of the OCP update process, the FVRD received updated geohazard advice from Cordilleran Geoscience and Braun Geotechnical (hereafter referred to as Braun-Cordilleran) and BGC Engineering Ltd to ensure growth is directed to suitable locations away from hazards, and appropriate mitigation advice is obtained where needed. These studies resulted in a complex and new understanding of geohazards in the Bridal Falls area.

The Braun – Cordilleran study delineated hazard areas into three primary categories of; No Apparent Hazard (NAH), Potential Hazard (PH) and Significant Hazard (SH). The hazard areas were mapped across the Plan area along the south side of Highway 1 from the City of Chilliwack boundary, to east of Anderson Creek. Within each studied polygon, a description of possible geohazards was provided. In many cases the geohazards are overlapping, and could include;

- rock fall;
- sediment flood;
- alluvial fan;
- debris slide;
- debris flow/flood;
- snow avalanche;
- flooding;
- localized landslip (landslide); and
- catastrophic landslide.

¹ The Cheam rock avalanche, Fraser Valley, British Columbia, Canada – John Orwin, John Clague, and Robert Gerath – Landslides 2004.

² (Naumann 1990).

³ FVRD Bridal Falls Uplands study, 1994.

Areas identified with potential or significant hazards have been mapped as shown on Map 2 – Geologic and Stream Hazards, and identified for further site specific study in GeoHazard Development Permit Area 3-D.

In addition to identifying the geohazard risk areas, the Braun – Cordilleran study identified the possibility of a large catastrophic landslide risk to Popkum-Bridal Falls from Mount Cheam, specifically from the Timber Camp Linears and Bridal Escarpment features. Braun – Cordilleran recommended that the FVRD undertake further study to understand the catastrophic landslide source areas and examine development proposals where densification increase is proposed.

To address the Braun-Cordilleran recommendation, BGC Engineering Ltd. completed a study of the Timber Camp Linears (TCL's) which identified lands that could be affected by a major rock avalanche from the TCL's. Provincial and FVRD policy establishes an annual return frequency threshold of less than 1:10,000 as the acceptable limit for development approvals which increase density within the geohazard area, this generally includes subdivision, zoning or Official Community Plan (OCP) amendments. Therefore new development which proposes to increase density in the 1:10,000 annual return frequency area is located in the Rock Avalanche Development Permit Area 1-D. The result is that growth and development is directed to West Popkum and long term growth areas in the Bridal Falls Uplands.

Policies regarding management of risk and hazards as they relate to forestry activities are provided in Section 10 – Environment and Resources. FVRD's Floodplain Management Bylaw establishes flood construction elevations and setbacks that apply to streams outside of alluvial fan areas. Known and potential hazard areas identified in the reports discussed above are shown on Map 2 - Geologic & Stream Hazards and included in development permit areas 1-D and 3-D. The policies below complement development permit areas and the floodplain management bylaw to provide direction for hazard and risk management, land use planning, and the approval of development subject to geohazards.

Catastrophic landslide

- major destabilization of rock and material (ie. vegetation) released by a de-stabilization of the slope (ie. seismic or earthquake event, high rainfall, etc.)
- destructive and life-threatening risk
- uncommon, unpredictable, and not suited to mitigation (ie. deflection walls, berms or basins or traps)
- examples include the Hope Slide and Frank Slide (Alberta).

Policy

- 9.3.1 New development within the Rock Avalanche Development Permit Area 1-D shown on Schedule 3 – Development Permit Area 1-D and which increases density or intensity of use and requires rezoning or OCP amendment or subdivision approval, will not be approved unless all of the following are completed:
- a. a site-specific geohazard report by a qualified professional with expert training and experience with catastrophic landslide hazards certifies that the land is safe for the use intended; and
 - b. an independent third party review of the site specific geohazard report is completed at the expense of the applicant and supports the conclusions of the site-specific report;
 - c. the geohazard report meets the *Hazard Acceptability Thresholds for Development Approvals by Local Governments*; and,
 - d. the geohazard report includes a complete EGBC-FVRD GeoHazard Assurance Statement and adheres to EGBC Practice Standards.
- 9.3.2 Avoidance and reducing exposure to risk and minimizing the consequences of hazard events will be central concerns in land use planning decisions.
- 9.3.3 The Ministry of Environment Flood Hazard Area Land Use Management Guidelines should be considered by the Regional Board when developing land use policy and regulation for alluvial fan and flood-prone areas.
- 9.3.4 Acceptable geohazard thresholds for development approvals should follow those set out in the *FVRD Hazard Acceptability Thresholds for Development Approvals* or equivalent Regional Board policy as it exists at the time.
- 9.3.5 The Regional Board should advocate to partner agencies for financial and technical support to undertake monitoring of the Timber Camp Linears.

9.3 Fraser River Floodplain Management

Popkum-Bridal Falls is unique in the FVRD electoral areas, given its limited exposure to Fraser River floodplain hazards. As a result of the Cheam landslide over 5000 years ago, the majority of the community is largely situated approximately 30 metres above the 1:200 year Fraser River floodplain. Accordingly, the Popkum area is designated for future growth and infrastructure investment.

Small pockets of low lying agricultural lands are located within the floodplain on the edges of the Plan area. These lands are undyked and appropriately designated either AGRICULTURAL or CONSERVATION in the land use section of the Plan. These designations support low density use of the lands.

Development within floodplain areas is managed by the FVRD Floodplain Management Bylaw. The bylaw includes requirements for building elevation, setbacks and avoidance of erosion areas. The Province of British Columbia sets out the overall framework and guidance for the development of flood management bylaws through the *Flood Hazard Land Use Management Guidelines* (2004), as updated. The Province of BC has completed several new hydraulic models and studies of the lower Fraser River flood hazard, including the effects of sea level rise. While the impacts of this new information are limited in the Plan area, the FVRD Floodplain Management Bylaw should reflect this most recent information.

Isolation could be the most significant impact to the Plan area when a Fraser River flood event occurs. Surrounding communities of Agassiz, Rosedale-Chilliwack and Laidlaw are within the 1:200 year floodplain. Areas outside of the floodplain will likely serve as places of refuge for displaced residents, farm operations and even recovery operations. Furthermore, Popkum-Bridal Falls residents may be cut off from daily services and should ensure they can provide for their needs for up to 72 hours.

Policy

- 9.3.1 Avoidance and minimizing exposure to flood risk and consequences of Fraser River flood events will be central concerns in land use planning decisions.
- 9.3.2 The Regional District will utilize floodplain management and zoning bylaws, official community plan policies and covenants to limit development within the floodplain and minimize exposure to risk.
- 9.3.3 Fraser Valley Regional District Floodplain Management Bylaw No. 0681, 2005 should be updated to reflect the most current Fraser River flood profile modelling.

9.4 Seismic Hazards

Seismic slope stability and soil liquefaction hazards may require specific consideration in development approvals. The BC Building Code requires that the:

- design of some buildings, notably buildings for assembly and institutional uses and buildings in excess of 600 m² in building area or exceeding three stories in height, address earthquake liquefaction hazards;
- consideration of potential for slope instability and its consequences at a building site is an explicit requirement in designs of structures and their foundations; and,
- seismic hazard probability level to be used in the consideration, particularly in assessment of seismic slope stability, is a 2%-in-50 year probability of exceedance.

Policy

- 9.4.1 Investigation and design of buildings on liquefiable sites should utilize, to the extent applicable, the best practices outlined in the *Greater Vancouver Liquefaction Task Force Report, Geotechnical Design Guidelines for Buildings on Liquefiable Sites in Accordance with NBC 2005 for Greater Vancouver Region* (May 8, 2007) or as updated.
- 9.4.2 Geotechnical analytical techniques for evaluating seismic slope stability should follow any best practices found in *Guidelines for Legislated Landslide Assessments for Proposed Residential Development in British Columbia*, published by the Engineers and Geoscientists of BC (or as updated).
- 9.4.3 Senior governments are encouraged to commission geotechnical investigations to produce data or maps of the Plan area showing ground susceptibilities to seismic shaking and soil liquefaction to assist with development approvals.

9.5 Wildfire Interface Hazard

The Wildland-Urban Interface may be defined as the area where structures and other human developments meet or intermingle with undeveloped wildland. In more general terms, it is where houses or commercial development and fairly dense forest vegetation are both present. Wildland-Urban Interface zones are at particular risk of wildfire. Fire is a natural part of forest ecology, but occurrences in interface zones, as well as the consequences, are greatly increased by proximity to human activities.

The slopes surrounding Bridal Falls have a wildfire history, though few significant fires have occurred in recent generations. However, the climactic trend toward warmer, drier summers may elevate wildfire risk over time. The consequences of interface fires can be great, including the loss of homes, business and even lives. Given the tourist commercial uses along the Bridal Falls corridor, campfires and outdoor burning in general is a common occurrence in the area.

The Forests, Lands, Natural Resource Operations and Rural Development - Coastal Fire Centre has developed Wildland / Urban Interface Fire Hazard maps. Forests adjacent to private lands in the Plan area have received a high hazard rating. Interface Fire Hazards are mapped in Map 3 - Interface Fire Hazards. The risk of wildfires will increase if climate change results in reduced summer precipitation. Suppression of wildfire on Crown land is the responsibility of the Forests, Lands, Natural Resource Operations and Rural Development - Wildfire Management Branch.

Policy

- 9.5.1 New subdivision and development should be avoided in locations subject to unacceptable risk from wildfire hazards.
- 9.5.2 Buildings and structures within areas of high wildfire hazard should be designed and constructed to minimize risk of interface fire hazards to people and property. Where warranted, the Regional Board may consider establishing a development permit area for this purpose.
- 9.5.3 New subdivision and developments in High interface fire hazard areas may be required to demonstrate FireSmart techniques. Rezoning applications in wild fire hazard areas may require an overall assessment of the site for susceptibility to wildfire (from conditions both on and off-site). Subdivision applications may require an assessment of the site for susceptibility to wildfire (from conditions both on and off-site) and mitigation of the hazard. Such reports shall be prepared by a professional forester licensed in BC specializing in forest wildfire assessment. Completion of works that reduce the hazard may be required prior as a part of any development approvals.
- 9.5.4 The Regional District will liaise with the Province regarding wildfire protection services.

- 9.5.5 Owners of land subject to wild fire hazard are encouraged to consider strategies to reduce the risk of damage from wildfire and to increase the ability to fight wildfire on the property, including:
- a. building in accordance with the BC FireSmart Homeowners Manual which recommends the use of non-combustible materials and other building and fuel management techniques;
 - b. utilizing fire resistant native plants in landscaping; and, applying “fire smart”, “fire scaping”, and fuel management strategies;
 - c. installing a well, pump, low-flow-resistance piping, and full-flow yard hydrant system delivering at least 20 gallons per minute per house for sprinklers;
 - d. installing well pumps in an approved way that allows safe and convenient connection to a portable electrical generator to supply the pump in the event of power outage;
 - e. utilizing rain storage tanks or other means for producing or storing water for firefighting on-site;
 - f. providing barrels or other means of quickly filling buckets and adding dish soap for extinguishment of small spot fires; and
 - g. ensuring access to ponds, creeks, pools and other sources of water supply for fire protection.
- 9.5.6 Residents and business owners in Popkum-Bridal Falls and visitors to it should diligently observe Open Fire Bans initiated by the Province and practice “fire smart” behavior to reduce the risk of wildfire initiation.



10.0 ENVIRONMENT & RESOURCES

Photo: Mt Cheam & Fraser River
Peterson Photography

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10.1 Environmental Significance

The natural environment of Popkum-Bridal Falls has provided for and drawn human settlement from ancient times to the modern day. From the Cascade mountains to Cheam wetlands to the Fraser River, the community has abundant and diverse natural features.

Popkum-Bridal Falls is located in the Coastal Western Hemlock Zone biogeoclimatic zone, characterized as mild winters, high rainfall and a long growing season which creates lush vegetation that supports a variety of wildlife. Preserving the environment and providing for development opportunities is critical to ensure that Popkum-Bridal Falls retains the natural character and economic opportunities for future generations.

Plan policies which guide the Regional Board in balancing development and the environment include:

- Development Permit Area policies in the Plan policies support the protection of riparian and terrestrial habitat, and groundwater impacts to Cheam Lake wetlands; and,
- Conservation subdivision design for lands adjacent to Cheam Wetlands Regional Park, as outlined in the RURAL land use designation.

In addition to managing environmental impacts from development approvals the Plan also provides policies which address;

- Water Protection
- Resource Management
- Noxious Weeds



10.2 Water Protection

Groundwater

Groundwater is vitally important to daily life, human health and the environment. Electoral Area “D” features one known aquifer, the Chilliwack-Rosedale Aquifer (Aquifer No. 006¹) an unconfined to semi-confined source that extends over Popkum-Bridal Falls and Rosedale. The aquifer is also the drinking water source for most residents and businesses, whether from the FVRD Area D Integrated Water System, which serves nearly 400 households or the 60 domestic groundwater wells.

Ensuring high quality groundwater is important. However limited technical information is available on the Chilliwack-Rosedale Aquifer. Land uses located above the aquifer are primarily agricultural lands with residential nodes such as the Rosedale community core and Popkum-Bridal Falls developed area. Activities associated with these land uses can include typical agricultural practices such as manure storage and management activities, and discharge of wastewater via onsite septic. As Popkum transitions to a sewage facility, wastewater discharge for new developments will meet the highest standard of “Class A” treatment, and opportunities for existing development to retroactively connect will be available.

Stream and Watershed Protection

Surface water resources have historically been an important issue in the Plan area, with concerns over logging in the Elk Creek – Nevin Creek – Dunville Creek watershed. Up to the early 2000’s the watershed served as the primary drinking water source for the City of Chilliwack, but now serves as the municipal reserve source. While the role of the watershed as a drinking water source has diminished, the importance of water quality and limiting impacts from development on water resources remains important.

The downstream reaches of Dunville, Nevin and Bridal Creeks provide habitat and nutrient for fish populations. These streams suffer from low flows during summer months due to seasonal low precipitation. The Province obliges local governments to ensure development does not impact riparian areas through the *Riparian Area Regulation*, implemented in the Plan under Development Permit Area 5-D.

The expanding tourist commercial developments in Bridal Falls and the ecological importance of Cheam Lake Wetlands Regional Park, all point to the significance of stream and water quality protection when development is considered in the area.

Development Permit Area 1-D, 2-D and 5-D policies provide for maintaining the quality of the environment and water resources in the Plan area. These policies also protect the long-term tourist, residential and economic potential of the area as well.

¹ Golder and Associates, FVRD Source Water Protection Assessment, May 12, 2015.

10.3 Resource Management

Historically Popkum and Bridal Falls was considered a resource extraction and logging community. Since the 1980's, resource extraction and associated industrial uses have transitioned to residential, tourism and agricultural uses. Resource extraction uses are no longer significant uses in the community. However, it remains that the crown land base above Bridal Falls is a working forest which can provide for resource uses. These resource uses must be managed carefully and consider the following:

- scenic and aesthetic value to the Popkum–Bridal Falls residents, tourism commercial operators and the travelling public;
- recreational value to adventure tourism and outdoor recreation users;
- low quality sand and gravel deposits;
- difficult to access forest harvest areas due to steep slopes, creek drainages and deactivated Bridal Falls Forest Service Road (FSR);
- interface concerns between neighbouring residential and tourism commercial, and resource extraction activities such as truck traffic, slope stability impacts, and view;
- sensitive creek and slope areas which may be impacted by resource extraction uses; and,
- First Nations land use interests as identified *S'ólh Téméxw Use Plan Policy*, which identifies the forested lands above Bridal Falls as *Sanctuary*.

Sanctuary lands in S'ólh Téméxw

The Stó:lō *S'ólh Téméxw Use Plan Policy* includes seven land use zones to express their cultural heritage and values.

Crown land and resource extraction areas of the Plan are generally considered Sanctuary lands are valued for their spiritual/religious activities such as water quality, view, sound, scent and require a pristine and private environment.

10.4 Noxious Weeds

Noxious weeds are typically non-native plants that have been introduced to the region without the insect predators or plant pathogens that helped control them in their native habitat. They typically have aggressive growth which makes them difficult to control. Noxious weeds spread quickly and leave sensitive ecosystems in ruins.

The *BC Weed Control Act* imposes a duty on all land occupiers to control designated noxious plants. All residents are responsible for controlling noxious weeds on their private properties.

The FVRD works closely with the Ministry of Agriculture and Lands and the Ministry of Transportation and Infrastructure to cooperatively facilitate weed control efforts within the Region. The FVRD's Noxious Weed Control Program specifically targets Wild Chervil and Tansy Ragwort. However, weed control staff are also active in identifying and mapping other aggressive species that are not currently provincially designated noxious weeds including Giant Hogweed and Knotweed.



During the summer (beginning of May until end of August), the FVRD will pick up designated noxious weeds (Tansy Ragwort, Wild Chervil, Giant Hogweed and Knotweed) free of charge from FVRD residents. Weeds must be bagged and appropriately labeled.

10.5 Avoiding and Mitigating Impacts to Habitat

Popkum-Bridal Falls includes a number of important habitat areas that contribute to overall character of the area as a community close to nature. Ensuring the vitality and long term health of these natural environments is important to maintaining this important community character. Therefore future development should work to preserve and ensure protection of the environment.

Official Community Plans may include policies related to the preservation, protection, restoration and enhancement of the natural environment, its ecosystems, and its biological diversity. These policies work together with provincial legislation to ensure environmental assessment and implementation is completed.

Plan policies that support protection of the environment can be found in;

- Land uses and densities direct growth to avoid environmentally sensitive areas;
- Tree preservation policies in SUBURBAN RESIDENTIAL areas in developing areas;

- Riparian Area Development Permit Area 5-D – ensures managed development in and around sensitive ecosystems and areas such as streams, rivers, lakes, wetlands and their surrounding riparian zones;
- Groundwater management – Development Permit Areas 1-D, 2-D and 4-D;
- Invasive plant management by discouraging the use of invasive plant species and support eradication of invasive plants.
- Watershed protection on crown land areas, are contained in Section 5.3 – FOREST land use designation.

Policy

10.5.1 **Development best practices.** New development should comply with the *Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia* (or as updated).

10.5.2 **Landowner education and outreach.** Landowner best practices should be encourage through a public education program in partnership with the Popkum Residents Association to;

- retain as much of the natural vegetation cover as possible when clearing land for housing, or other forms of development;
- avoid land clearing (where possible) between April 1st and July 30th to avoid conflicts with activities of nesting birds, their nests, eggs and trees; and use native plants species for landscaping;
- support community groups and their efforts as resources permit, primarily through in-kind contributions;
- utilize agricultural practices that minimize the potential for groundwater impacts; and,
- understand groundwater resources, especially those with shallow wells, to have drinking water tested regularly, and close unused wells in accordance with the Groundwater Protection Regulation of the *Water Sustainability Act*.

10.5.3 **Data collection and partnerships.** The Regional District will participate in efforts of senior governments, community groups and industry representatives to collect data and develop strategies to protect groundwater for the long term.

10.5.4 **Noxious weeds.** The *BC Weed Control Act* imposes a duty on all land occupiers to control designated noxious plants. All residents are responsible for controlling noxious weeds on their private properties.


- 10.5.5 **Hydrological assessment** may be required where the potential exists for negative impacts to groundwater and soil from ground-based disposal.
- 10.5.6 **Forest Service Roads.** The Ministry of Forests, Lands, Natural Resource Development should consult with the Regional District regarding deactivation of major forestry roads, including Bridal Falls FSR, which are relied upon for recreational purposes.
- 10.5.7 **Recreation value.** Resource activities on Crown land should recognize the economic value of recreation uses and the effect on community character, when assessing resource development proposals and their economic input.
- 10.5.8 **Recreation Buffer areas.** Forest licensees are encouraged to provide buffers where cut block units are located adjacent to recreation sites such as the FVRD Cheam Ridge Trail or other licensed trails.
- 10.5.9 **Community Consultation.** Plans and proposals for resource extraction are encouraged to refer plans to the Regional District for comments respecting potential consequences or effects on private land, Regional Parks, water supplies, geohazard and hydrological conditions, environmental, traffic, recreation, scenic and other community values.
- 10.5.10 **Crown-Community Interface Policy.** Forest licensees and other users of crown land should ensure proposals address the *FVRD Crown Community Interface Policy*.
- 10.5.11 **Aggregate extraction.** A permit pursuant to the FVRD's Commercial Aggregate Bylaw is required prior to the removal of sand, gravel, or rock except as exempted by the bylaw.
- 10.5.12 **Run of river.** Run of river developments should provide a comprehensive plan to:
- identify and address geotechnical hazards and any potential downstream impacts;
 - identify and demonstrate how potential impacts will be mitigated to sensitive habitat, species at risk and other environmental values;
 - address recreation impacts;
 - examine view impacts and where possible locate structures and associated components outside of visual corridors; these include visibility from settled areas and recreation trails and sites;
 - engage and consult with community members to provide information and address concerns;
 - limit new road construction on the Crown land base to prevent illegal dumping; and,
 - examine potential impacts of exposed conduit or power lines along forest service roads used by recreation users and logging vehicles.

10.6 Greenhouse Gas Emissions

Reducing greenhouse gas emissions is a shared responsibility that includes local government, residents, businesses and industry. In 2008, the Province adopted *Local Government (Green Communities) Statutes Amendment Act* which requires the FVRD to set targets, policy and action in OCP's to reduce emissions.

Reduction targets from 2007 emission levels are set out in the *Climate Change Accountability Act* and which provides for a two phase reduction target.

Provincial Reduction Targets

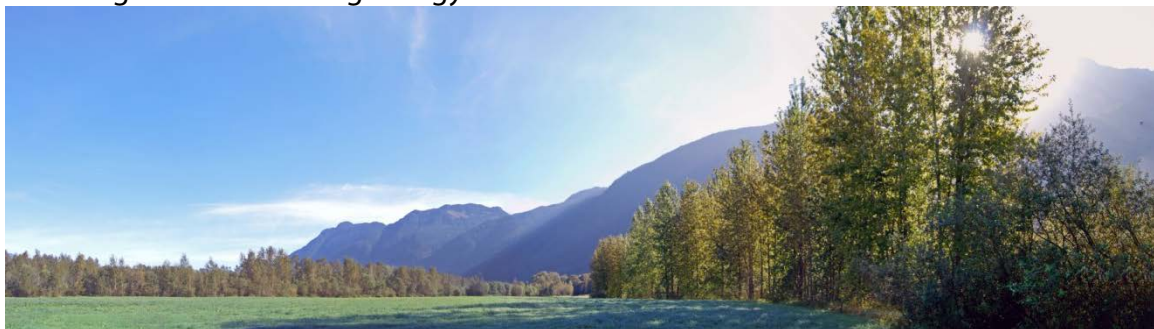
	Year	Percent reduction
	2030	40% reduction
	2040	60% reduction

Policy

10.6.1 Environmental building design. Where new dwellings are proposed, residents are encouraged to construct energy efficient, low-impact buildings which should include storm water management, water conservation, drought-resistant landscaping and minimal impervious surfaces.

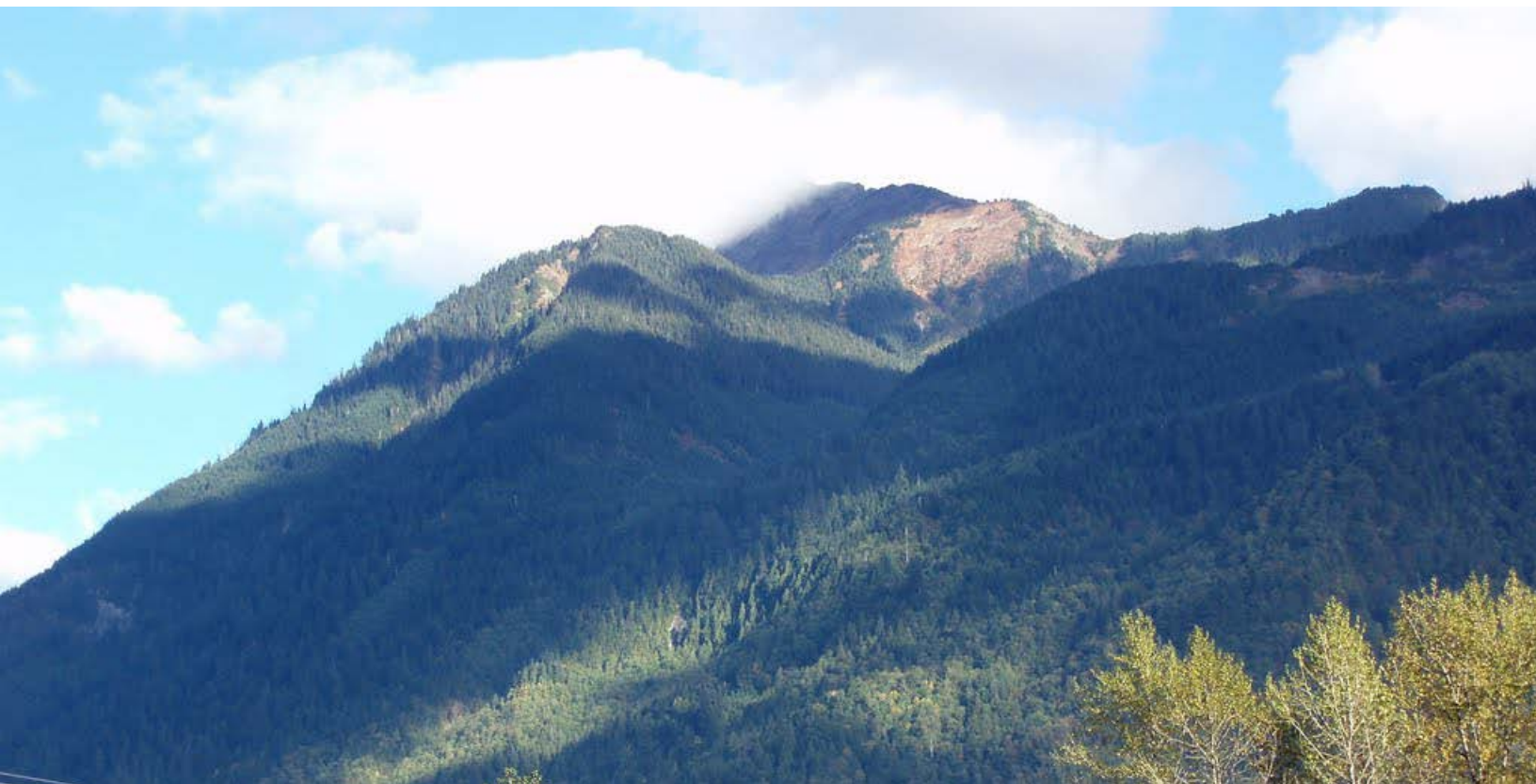
10.6.2 Renovate green. When renovating an existing dwelling homeowners are encouraged to retrofit existing homes to become more energy efficient and to reduce their carbon footprint.

10.6.3 Brochure for residents. The Regional District will produce a guide to assist residents with retrofitting and constructing energy efficient and low-carbon homes in the FVRD.



11.0 DEVELOPMENT PERMIT AREAS

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11.1 Rock Avalanche Development Permit Area 1-D

Category of Designation

"Rock Avalanche Development Permit Area 1-D" is designated pursuant to Section 488 of the *Local Government Act* for the protection of development from hazardous conditions.

Area of Application

Development Permit Area No. 1-D encompasses lands identified on Schedule 3 – Rock Avalanche Development Permit Area 1-D.

Justification

Bridal Falls and portions of Popkum are located within an identified low probability rock avalanche hazard area, originating from the Mount Cheam slope areas specifically known as the Timber Camp Linears and Bridal Falls escarpment. BGC Engineering Ltd. completed a rock avalanche hazard assessment for Timber Camp Linears (TCL). BGC delineated lands affected by a major rock avalanche the TCL's over a series of encounter probability scenarios from 1:9000, 1:10,000 and 1:18,000.

A rock avalanche is a major destabilization of rock and material (ie. vegetation) that is released by a de-stabilization of the slope (ie. seismic or earthquake event, high rainfall, etc.). Such events pose a destructive and life-threatening risk to those living below the slide area. They are characterized as

uncommon, unpredictable, destructive and not suited to mitigation (ie. deflection walls, berms or basins or traps).

Mount Cheam experienced a rock avalanche event over 5000 years ago, which reached the Fraser River. Visible remnants of the slide are still observable throughout Popkum and Bridal Falls today.

Unfortunately, protective measures such as deflection berms, catch basins, advance warning equipment or building design cannot reduce the risk from a rock avalanche event. The size, unpredictability and impact of a rock avalanche event simply are too significant to mitigate. Risk reduction is primarily preventative by simple avoidance of the hazard by encouraging density and growth to areas outside the risk area. Slope monitoring devices may provide insight and warning to event occurrence, and their use requires consideration and an action framework to identify warning thresholds and actions.

To manage growth and development approval decisions in geohazard locations, the Fraser Valley Regional District has adopted the *Hazard Acceptability Thresholds for Development Approvals* policy. This policy establishes a threshold of less than 1:10,000 as the acceptable limit for development approvals which increase density within the geohazard area, this generally includes subdivision, zoning or Official Community Plan (OCP) amendments.

The 1:10,000 encounter probability line and landslide initiation zone (TCL source area) provide the basis for locating the boundaries of Development Permit Area 1-D. Geo-hazards and studies are described in more detail in Section X of this Plan. To minimize long term risk exposure to the landslide risk in Bridal Falls and portions of Popkum, DPA 1-D directs increased densification to areas outside the 1:10,000 encounter probability boundary.

Potential Hazard

- Rock Avalanche (major catastrophic landslide)

Objectives

The objectives of Development Permit Area 1-D are to minimize the potential for damage to property and the risk to life by the following actions;

- designate areas where increased density is not suitable or requires further expert review;
- direct density away from the long term – low risk rock avalanche hazard area;
- provide opportunities for existing development to retain and expand current uses;
- avoid incremental density increase which allow new uses;

- allow for land use suitable under hazardous conditions, in accordance with geotechnical studies and the *"Hazard Acceptability Thresholds for Development Approvals by Local Governments"* or equivalent Regional Board policy as it exists at the time;
- ensure adequate professional evaluation of the rock avalanche hazard and a risk reduction strategy.

Activities requiring a permit

11.1.1 A development permit must be obtained prior to the:

- a. subdivision of land, including building and bareland strata subdivision;
 - b. construction of new commercial buildings, uses, structures and additions;
- within the development permit area.

Exemptions

11.1.2 Notwithstanding Section 11.1.1, a development permit may not be required for any of the following:

- a. Subdivision to facilitate a lot consolidation or a boundary adjustment, utilities, provided no additional parcels are created;
- b. Subdivision to facilitate the use of land for non-human occupancy, uses include: greenspaces, natural parks, recreation, conservation lands, agricultural uses, mitigation works, and forestry or natural resource extraction activities.
- c. Redevelopment or expansion of existing commercial uses that do not include overnight accommodation.

Guidelines

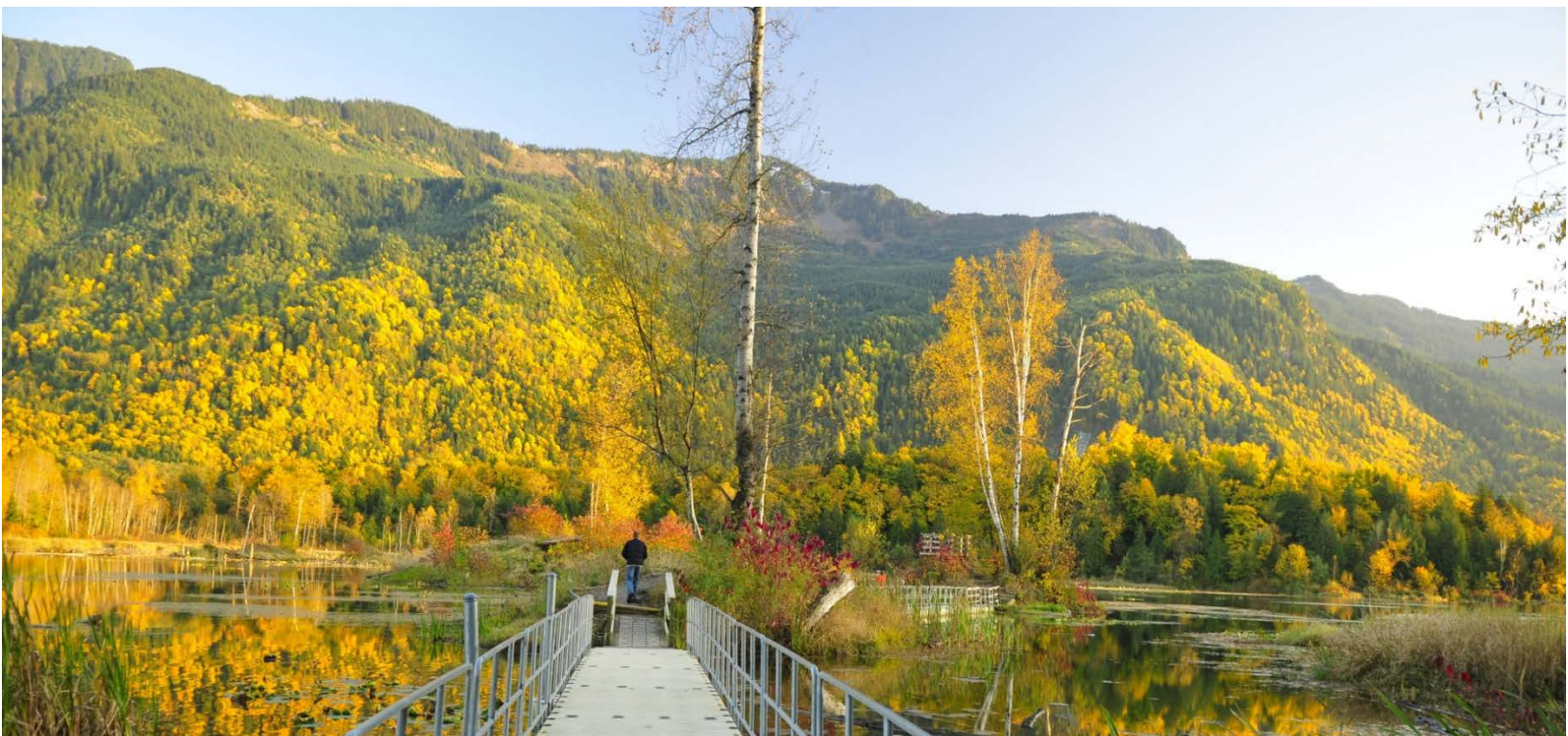
In order to achieve the objectives of Development Permit Area 1-D, the following guidelines shall apply to the issuance of development permits:

- 11.1.3 Expert rock avalanche - geohazard report required. A site-specific geotechnical report by a qualified professional with expert training and experience with catastrophic landslide hazards may be required pursuant to Section 491 (4) and (5) of the *Local Government Act*.
- 11.1.4 Independent third party review. The Regional Board will require an independent third party review at the FVRD's discretion of the site specific geohazard report at the expense of the applicant.

- 11.1.5 Avoidance is a priority. Uses, buildings and structures shall not be sited in areas where the probability of a landslide geohazard event as determined by a site specific geohazard report exceeds the level of acceptable risk for that event and that specific form of development established in the *Hazard Acceptability Thresholds for Development Approvals by Local Governments*.
- 11.1.6 Geohazard report requirements submitted in support of a development permit applications shall meet the requirements outlined in the:
- a. FVRD and Engineers and Geoscientists of British Columbia (EGBC) GeoHazard Assurance Statement;
 - b. FVRD Hazard Acceptability Thresholds for Development Approvals;;
 - c. Province of BC Flood Management Guidelines; and,
 - d. EGBC Professional Practice Standards, as appropriate.
 - e.
- 11.1.7 The Regional Board may refuse to issue a development permit where the hazard frequency, as determined by a qualified professional, exceeds the acceptability threshold for the proposed development stipulated in *Hazard Acceptability Thresholds for Development Approvals by Local Governments* or Regional Board policy as it exists at the time.
- 11.1.8 Development Permits shall be in accordance with the recommendations of the applicable geohazard report or reports, and may include the following terms and conditions;
- a. conditions or restrictions respecting the uses and densities permitted in the zoning bylaw;
 - b. specific areas to remain free of development, or other matters as specified in Section 491 (2) of the *Local Government Act*; and,
 - c. vary or supplement a bylaw under Division 1 or 11 of the *Local Government Act* provided that the variance or supplement is in accordance with the objectives and guidelines of Development Permit Area 1-D.

Offence

- 11.1.9 Penalty may result from a failure to:
- a. obtain a development permit where one is duly required; or,
 - b. develop land strictly in accordance with a development permit issued;
- are offences under the *Local Government Act* and are contrary to the bylaws, regulations or policies of the Regional District. Upon summary conviction, penalties for offences may be up the maximum amount as set out in the *Local Government Act*.
- 11.1.10 Employees, officers and agents of the Regional District may enter, at all reasonable times, a property to inspect and determine whether the requirements of Development Permit Area 1-D and the terms and conditions of a development permit are being met.



11.2 Cheam Lake Development Permit Area 2-D

Category of Designation

"Cheam Lake Development Permit Area 2-D" is designated pursuant to Section 488 of the Local Government Act for the; protection of the natural environment, its ecosystems and biological diversity.

Area of Application

Development Permit Area No. 2-D encompasses lands identified on Schedule 4 – Cheam Lake Development Permit Area 2-D.

Justification

Cheam Lake Wetlands is a 107 hectare regional park located between the lower slopes of Mount Cheam and the Fraser River. It is a regionally significant location for wildlife, riparian species, waterfowl and their habitat. The park is comprised of lake, marsh and forest. It is popular for walking, picnicking and bird watching and is home to many insect, mammal and bird species. To date, 184 different bird species have been recorded in the park.

Cheam Lake Wetlands Regional Park is encircled by low-density development ranging from suburban residential development to agriculture. Ensuring that future development continues to avoid groundwater impacts, and avoid habitat impacts to wildlife is critical to the long term viability of the wetlands.

Objectives

The objective of Development Permit Area 2-D is to protect Cheam Lake waterfowl and other wildlife resource values; to prevent degradation of surface and groundwater; and, ensure adjacent land uses support and facilitates conservation objectives.

Activities Requiring a Permit

- 11.2.1 A development permit must be obtained prior to alteration of land or construction or addition of a building or structure located within 30 metres of Cheam Lake on land with a natural grade elevation below 37.5 m GSC.

Exemptions

- 11.2.2 Notwithstanding Section 11.2.1, a development permit is not required for the following:
- a. Proposals which comply with all of the policies outlined in policy 11.2.4.
 - b. Federal and Provincial regulated utilities, including railways, transmission lines or pipelines;
 - c. Public road or highway works;
 - d. Development of an approved community water or sanitary sewer system;
 - e. Local and regional park facilities.

Guidelines

In order to achieve the objectives of Development Permit Area 2-D, the following guidelines shall apply to the issuance of Development Permits:

- 11.2.3 A report from a qualified professional engineer (QP) which certifies that the development will not result in contamination of the groundwater or increased surface run-off to Cheam Lake Wetlands must be submitted;
- 11.2.4 The QP shall address the following best practices in their report:
- a. Development shall be screened from the lakeshore through the use of natural vegetation in order to maintain a buffer;
 - b. Dedication of natural watercourses or the construction of works to preserve or enhance natural watercourses, may be required for the purposes of environmental protection;
 - c. Identifies areas and measures for habitat assessment and preservation;

- d. Sequence and timing of construction shall be controlled so as to avoid conflict with fish and wildlife resources; and,
- e. Construction activities shall include appropriate controls to minimize the discharge of sediment into waterbodies.

- 11.2.5 On-site sewage disposal, water supply and stormwater systems shall be prohibited in areas below 37.5 m elevation geodetic, and within 30 m of the surveyed lakeside boundary, except where a professional engineer certifies that:
- a. ensure post-development storm water flow volumes will not exceed predevelopment flow volumes in receiving waters;
 - b. maintain, to the extent possible, predevelopment flow patterns and velocities;
 - c. provide conveyance routes for major storms;
 - d. demonstrate the use of best practices;
 - e. certify that water quality of receiving surface and ground waters will not be negatively affected by stormwater surface run-off during and post development; and,
 - f. certify, where applicable, that there will be no negative effect on Cheam Lake.

Riparian Areas Regulation

- 11.2.6 Where the proposed development requires a riparian assessment pursuant to Development Permit Area 5-D, the QP report shall be coordinated with the riparian assessment in order to provide a comprehensive development permit application.

Permit Conditions

- 11.2.7 Without limiting the range of permit conditions enabled by the *Local Government Act*, a development permit may:
- a. include conditions or restrictions respecting the uses and densities permitted in the zoning bylaw, the sequence and timing of construction, areas to remain free of development, vegetation or trees to be planted or retained, natural drainage to be maintained or enhanced, or other matters as specified in Part 14, Division 7 of the *Local Government Act*; and,
 - b. vary or supplement a bylaw under Part 14, Division 7 or 11 of the *Local Government Act* provided that the variance or supplement is in accordance with the objectives and guidelines of Development Permit Area 2-D.

Permit Security

- 11.2.8 The Regional District may require the applicant to provide security in the form of cash or an unconditional, irrevocable and automatically renewing letter of credit in cases where:
- a. security for the performance of conditions respecting landscaping is necessary;

- b. the Regional District considers that damage to the natural environment could result as a consequence of a contravention of a condition in a development permit;
- c. the Regional District considers that unsafe conditions could result as a consequence of a contravention of a condition in a development permit; and,
- d. the permit holder is required to retain, restore or replace native vegetation.

11.2.9 The amount of the security shall be sufficient to cover the cost of any work that may be undertaken by the Regional District to address unsatisfied permit conditions; or, to correct deficient landscaping conditions, an unsafe condition, or damage to the natural environment; that could reasonably be expected to result from the contravention of the permit.

Offence

11.2.10 Failure to:

- a. obtain a development permit where one is duly required; or,
- b. develop land strictly in accordance with a development permit issued;

are offences under the Local Government Act and are contrary to the bylaws, regulations or policies of the Regional District. Upon summary conviction, penalties for offences may be up to the maximum set out in the Local Government Act.

11.2.11 Employees, officers and agents of the Regional District may enter, at all reasonable times, a property to inspect and determine whether the requirements of Development Permit Area 2-D and the terms and conditions of a development permit are being met.



Photo: CBC Archives

11.3 GeoHazard Development Permit Area 3-D

Category of Designation

"GeoHazard Development Permit Area 3-D" is designated pursuant to Section 488 of the *Local Government Act* for the; protection of development from hazardous conditions.

Area of Application

Development Permit Area No. 3-D encompasses lands identified on Schedule 5 – Geo-Hazard Development Permit Area 3-D.

Justification

Bridal Falls and portions of Popkum are subject to a variety of geo-hazards originating from the upslope areas of Mount Cheam. The Braun Cordilleran Geoscience Ltd. and BGC Engineering Ltd. studies included hazard zone mapping resulting from a detailed study of the geo-hazards.

Delineation of the areas affected by debris flow, debris flood and steep slope hazards, including the probability of such events, further enhances and clarifies the understanding of these hazards. This provides a basis for locating the boundaries of Development Permit Area 3-D. Hazards and hazard studies are described in more detail in Section 9 of this Plan. To protect new development from the geo-hazards present in the Popkum-Bridal Falls, the following conditions, objectives, and guidelines apply to DPA 3-D.

Potential Hazards

- Alluvial fan
- Debris flow
- Debris slide
- Landslide
- Rockfall
- Snow avalanche
- Flooding

Objectives

The objectives of Development Permit Area 3-D are to:

- direct development away from hazardous areas;
- allow for land use suitable under hazardous conditions, in accordance with geotechnical studies and the *“Hazard Acceptability Thresholds for Development Approvals by Local Governments”* or equivalent Regional Board policy as it exists at the time;
- obtain assurance from the Qualified Professional that the development satisfies the FVRD-EGBC GeoHazard Assurance Statement;
- ensure adequate professional evaluation of geological hazards and mitigation works; and,
- minimize the potential that new developments and alterations of land will increase hazards to downslope lands;

so as to minimize the potential for damage to property and the risk to life.

Activities requiring a permit

11.3.1 A development permit must be obtained prior to:

- a. subdivision of land;
- b. alteration of land; or
- c. construction of, addition to, or alteration of a building or structure;

within the development permit area.

Exemptions

- 11.3.2 Notwithstanding Section 11.3.1, a development permit may not be required for any of the following:
- a. 25% minor construction. An addition to a building or structure up to 25% of the existing ground floor area, existing at December 31, 2018.
 - b. Unconditional GeoHazard report. Qualified professional (QP) geotechnical engineer or geoscientist report which is within the level deemed acceptable in the Regional Board policy *Hazard Acceptability Thresholds for Development Approvals by Local Governments*¹; completed FVRD-EGBC GeoHazard Assurance Statement; and, no mitigation or conditions (such as siting, elevation, berm, etc) is required by the QP.
 - c. 20 square metres or less. Construction of a single storey detached residential accessory building or structure, or addition thereto, which is not intended to be used for any residential occupancy and where the total floor area after the new construction or addition does not exceed 20 square metres (215 square feet) provided that it involves no alteration of land, excavation of potentially unstable slopes, or the placement of fill on potentially unstable slopes;
 - d. Small farm buildings. Construction of a building or structure or an addition to an existing building or structure which is intended to be used as a farm building of “low human occupancy” as defined in the National Farm Building Code of Canada and where the total floor area after the new construction or addition does not exceed 30 square metres (323 square feet);
 - e. Hazard Trees. Removal of trees determined by a Certified Arborist or Registered Professional Forester (who is qualified to do tree risk assessment) to represent an imminent risk to safety of life and buildings;
 - f. Riparian Enhancement. Riparian habitat enhancement or restoration works under the guidance of Provincial and Federal agencies;
 - g. Lot consolidation or boundary adjustment. Subdivision to facilitate a lot consolidation or a boundary adjustment, provided no additional parcels are created;
 - h. Parks for local and regional facilities;
 - i. Emergency Response. Emergency actions necessary to prevent, control or reduce immediate and substantial threats to life or property during flood, debris flood/flow, erosion, landslide, avalanche, stream avulsion and other geo-hazard events;

¹ Or equivalent Regional Board policy as it exists at the time;

- j. Flood management. Repair, maintenance and improvement of flood protection infrastructure and all related ancillary or accessory works, regulated and approved by Federal or Provincial agencies;
- k. Roads and highways for public road or highway works;
- l. Signs. free standing signs and signs attached to existing structures;
- m. Public utilities and infrastructure; and,
- n. Forestry activities on Crown land undertaken under an approved Forest Stewardship Plan, approved by the Ministry of Natural Resource Operations in accordance with the *Forests and Range Practices Act*.

Guidelines

In order to achieve the objectives of Development Permit Area 3-D, the following guidelines shall apply to the issuance of development permits:

- 11.3.3 Where possible, development should be sited to avoid hazards. Where impossible or impractical to avoid hazards, mitigation measures may be considered.
- 11.3.4 A site-specific geohazard report will be required pursuant to Section 491 (4) and (5) of the *Local Government Act*.
- 11.3.5 Development Permits shall be in accordance with the recommendations of the applicable geohazard report or reports.
- 11.3.6 Geohazard reports submitted in support of a development permit applications shall meet the requirements outlined in *Engineers and Geoscientists of British Columbia (EGBC) – FVRD GeoHazard Assurance Statement* (or equivalent Regional Board policy as it exists at the time) and the appropriate EGBC Professional Practice Standards.
- 11.3.7 The Regional Board may refuse to issue a development permit where the hazard frequency, as determined by a qualified professional engineer, exceeds the acceptability threshold for the proposed development stipulated in *FVRD Hazard Acceptability Thresholds for Development Approvals by Local Government* or Regional Board policy as it exists at the time.
- 11.3.8 No alterations to the natural drainage or vegetation, and no construction or excavation should be permitted which might cause or contribute to hazardous conditions on the site or on adjacent lands.

- 11.3.9 Where development requires a riparian assessment pursuant to Development Permit Area 5-D, the site-specific geo-hazard report shall be coordinated with the riparian assessment in order to provide a comprehensive development permit application.

Terms and Conditions

- 11.3.10 A development permit may vary or supplement a bylaw under Part 14, Division 7 or 11 of the *Local Government Act* provided that the variance or supplement is in accordance with the objectives and guidelines of Development Permit Area 3-D.
- 11.3.11 A development permit may include conditions or restrictions respecting the uses and densities permitted in the zoning bylaw, the sequence and timing of construction, areas to remain free of development, vegetation or trees to be planted or retained, natural drainage to be maintained or enhanced, or other matters as specified in Section 491 of the *Local Government Act*.
- 11.3.12 Property owners are advised that the following activities may exacerbate hazards and contribute to slope failure and should generally be avoided:
- a. placing fill, organic wastes, and debris along or below the crest of slopes;
 - b. excavation on steep slopes or at the base of slopes;
 - c. discharge of surface or ground water on or below the crest of slopes; and,
 - d. cutting trees on or below the crests of slopes.

Permit Security

- 11.3.13 The Regional District may require the applicant to provide security in the form of cash or an unconditional, irrevocable and automatically renewing letter of credit in cases where:
- a. security for the performance of conditions respecting landscaping is necessary;
 - b. the Regional District considers that damage to the natural environment could result as a consequence of a contravention of a condition in a development permit;
 - c. the Regional District considers that unsafe conditions could result as a consequence of a contravention of a condition in a development permit; and,
 - d. the permit holder is required to retain, restore or replace native vegetation.

The amount of the security shall be sufficient to cover the cost of any work that may be undertaken by the Regional District to address unsatisfied permit conditions; or, to correct deficient landscaping conditions, an unsafe condition, or damage to the natural environment; that could reasonably be expected to result from the contravention of the permit.

Offence

11.3.14 Failure to:

- a. obtain a development permit where one is duly required; or,
- b. develop land strictly in accordance with a development permit issued;

are offences under the *Local Government Act* and are contrary to the bylaws, regulations or policies of the Regional District. Upon summary conviction, penalties for offences may be up to the maximum amount as set out in the *Local Government Act*.

11.3.15 Employees, officers and agents of the Regional District may enter, at all reasonable times, a property to inspect and determine whether the requirements of Development Permit Area 3-D and the terms and conditions of a development permit are being met.



11.4 Commercial Development Permit Area 4-D

Category of Designation

"Commercial Development Permit Area 4-D" is designated pursuant to Section 488 of the Local Government Act for the: establishment of objectives for the form and character of intensive residential development; and the protection of the natural environment, its ecosystems and biological diversity.

Area of Application

Development Permit Area No. 4-D encompasses lands identified on Schedule 6 – Commercial Development Permit Area 4-D.

Justification

Popkum and Bridal Falls are located adjacent to major provincial transportation networks of Highway 1 and 9. Ensuring a consistent and high architectural quality is vital to each community. Highway commercial developments have traditionally served a utilitarian focus without consideration of buffering, form and character, and pedestrian connections between uses. This eliminates a sense of place, reflects little or none of the local character and detracts from the identity of Popkum.

Each community features a commercial node that serves both as a common service area and gateway to other nearby uses. DPA 4-D policies are to ensure new commercial developments in Popkum provide a high quality architectural design and layout, which compliments and integrates into the residential community. Highway commercial development should make use of natural materials such as stone and wood, vary roof pitches and building styles to integrate into a suburban residential area, and create a distinct sense of arrival to Popkum for visitors and residents.

The HIGHWAY TOURIST RECREATION COMMERCIAL (HTRC) designated lands provide the basis for locating the boundaries of Development Permit Area 4-D. HTRC designation policies are described in more detail in Section 5 of this Plan.

Objectives

The objectives of Development Permit Area 4-D are to:

- ensure compatibility in the siting and form of adjacent and nearby commercial developments;
- enhance new commercial development by providing for planned landscaping, screening, access, lighting and signage standards.
- ensure commercial development demonstrate a high level of design and are integrated into both the surrounding commercial uses and residential neighbourhoods;
- ensure the form and character, including building materials and colour schemes, of commercial development reflects the environmental and cultural context of the community;
- protect the amenities, including views, of existing residential areas by co-ordinating the character, form, and scale of new commercial development;
- maintain visual values, including views to mountains and sky, and an open feeling along the rural highway;
- ensure that all new commercial uses are adequately served by the FVRD community water system; and,
- ensure that all waste produced on site (sanitary sewage and storm drainage) are disposed of through community systems where provided for in this Plan or, elsewhere, through on-site systems which reflect the sensitivity of the local environment and the need to protect the ground water regime.

Activities requiring a permit

11.4.1 A development permit must be obtained prior to:

- a. exterior construction of, addition to, or alteration of a commercial building or structure within the development permit area.

Exemptions

11.4.2 Notwithstanding Section 11.4.1, a development permit may not be required for any of the following:

- a. subdivision of land;
- b. construction of, addition to, or alteration of a single-family dwelling or accessory residential building where no commercial component is present;
- c. interior renovations; and,
- d. exterior maintenance of repairs which do not involve substantial changes in the exterior finish, colour scheme, or size of the building.

Guidelines

In order to achieve the objectives of Development Permit Area 4-D, the following design guidelines shall apply to the issuance of development permits for new commercial developments, buildings and structures:

11.4.3 Pedestrian Routes

- a. located adjacent to and opposite compatible commercial developments;
- b. paving or surfacing features which highlight the route;
- c. constructed of uniform and complementary material for a cohesive appearance throughout the development; and,
- d. buffered where feasible from roadways, vehicular traffic, and parking areas.

11.4.4 Borders, Landscaping and Screening

- a. provide for an attractive, safe, and distinct edge along the property frontages on Bunker, Cray, Caryks, Thompson and Yale Roads and Highway No. 9;
- b. provide visual continuity;
- c. define and buffer surface parking, storage and service areas from adjacent residential uses, pedestrian corridors and roadside views;
- d. ensure visual privacy to any adjacent residential properties;
- e. utilize native species retain existing vegetation; and,
- f. all landscaping and screening shall meet or exceed the British Columbia Society of Landscape Architects and British Columbia Nursery Trades Association standards.

11.4.5 Parking areas

- a. locate three (3) metres setback from any lot line adjoining a residential use;
- b. screened from public roadways with landscaping or a combination of landscaping and earth berms;
- c. one (1) metre landscaped buffer strip shall be provided between the parking spaces and the building.

- d. incorporate the use of walkways to separate parking spaces from buildings and to provide orderly and attractive pedestrian circulation;
- e. avoid large, unbroken expanses. Landscaping elements such as parking islands or medians shall be used to break up large parking areas into smaller cells. One shade tree shall be provided for every 10 parking spaces;
- f. use paved surfacing or porous paving, paving stones, french drains, landscaped areas and similar techniques are encouraged to facilitate exfiltration of storm water; and,
- g. ensure all parking spaces shall be clearly delineated and provided with curbs or wheel stops.

11.4.6 Signs and lighting

- a. size, location and design of free-standing commercial signs and other advertising structures not attached to buildings shall be compatible with uses and structures on adjacent properties;
- b. fascia signage recessed into the facade of the building, where possible;
- c. form and character of signage is consistent throughout the development comparable quality to that of the principal buildings;
- d. natural materials, including exposed aggregate, is encouraged for sign structures;
- e. single pole sign supports is not permitted; and,
- f. site lighting shall be designed to minimize “light spill” onto adjacent residential or agricultural lands.

11.4.7 General siting, design and finishing

- a. compatible with access, servicing, and signage conditions and constraints on adjacent lands;
- b. designed to complement a pedestrian scale and focus;
- c. locate the building face towards a road or highway, and where this is not possible ensure a visually attractive appearance shall be provided by a combination of landscaping, finishing and fenestration of the structure to a similar standard as the front of the building;
- d. avoid blank and monotonous facades shall be avoided;

- e. provide relieved with changes of wall plane or differentiation that provides strong shadow or visual interest for buildings exceeding two stories or fifteen (15) metres in height;
- f. ensure cohesive design within multi-building developments by the use of similar roof pitches, proportion, height, materials, fenestration and design theme; and,
- g. include primary building entrance that is clearly defined and provides a sense of entry.

11.4.8 Building height , where a:

- a. multi-story motel or hotel, the design and use shall incorporate a landmark or focal point of the commercial node and of high quality design, materials and architecture; or,
- b. two story commercial development, the design of the second storey residential unit shall provide adequate amenities for the dwelling unit, including a rear yard with screening for privacy, are provided, and all other guidelines of the permit area are met.

11.4.9 Architectural design

- a. materials and colour schemes acknowledge the traditional agricultural and resource based economy and culture of the area, and should incorporate a clear and well-articulated design concept;
- b. avoid advertising, particularly where the proposed architecture is the result of a corporate or franchise style;
- c. colour schemes should reflect the surrounding natural and cultural landscape, and incorporate stone and wood features, and not utilize pastel colours;
- d. pitched roofs to reflect the surrounding mountains, to preserve a feeling of openness along the highway and roads and to provide broad sightlines to mountains and the sky;
- e. maximize sunlight penetration to open areas and pedestrian areas;
- f. on-site services should be located so as not to preclude future uses of adjacent properties.

11.4.10 Water, Sewer and Stormwater

- a. water shall be provided by the FVRD community water system;
- b. sewer shall be provided by FVRD community system where possible, or alternatively on-site sewage is proposed where certified by a Professional Engineer registered in the Province of British Columbia, which certifies that the sewage will not lead to long term degradation of the ground water;
- c. storm water management plan prepared by a professional engineer to:
 - i. ensure post-development storm water flow volumes will not exceed predevelopment flow volumes in receiving waters;
 - ii. maintain, to the extent possible, predevelopment flow patterns and velocities;
 - iii. provide conveyance routes for major storms;
 - iv. demonstrate the use of best practices;
 - v. certify that water quality of receiving surface and ground waters will not be negatively affected by storm water surface run-off during and post development; and,
 - vi. certify, where applicable, that there will be no negative effect on neighbouring properties.

11.4.11 Assurance and compliance report by a Registered Architect ² must include the following:

- a. site schematic showing vehicular and pedestrian circulation, and the design and layout of pathways and linkages;
- b. landscaping plan;
- c. layout and design of parking areas, storm water infrastructure, and lighting;
- d. design, materials and colour scheme of proposed free-standing signs and sign supports;
- e. architectural elevations of proposed buildings and structures showing finishing materials and colour schemes;
- f. site plan showing the siting of all proposed buildings and structures; and,
- g. compliance report detailing and confirming DPA 4-D guidelines have been satisfied.

² All drawings and illustrations must be in colour and scaled.



11.5 Riparian Areas Development Permit Area 5-D

Category of Designation

"Riparian Areas Development Permit Area 5-D" is designated pursuant to Section 488 of the *Local Government Act* for the; protection of the natural environment, its ecosystems and biological diversity.

Area of Application

Development Permit Area No. 5-D encompasses lands identified on Schedule 7 – Riparian Areas Development Permit Area 5-D.

Development Permit Area 5-D consists of all those parcels of land:

- a. within the area of this Official Community Plan; and,
- b. entirely or partially within a Riparian Assessment Area, which is:
 - i. for a stream, the 30 metre strip on both sides of the stream, measured from the high water mark;
 - ii. for a ravine less than 60 metres wide, a strip on both sides of the stream measured from the high water mark to a point that is 30 metres beyond the top of the ravine bank; and,
 - iii. for a ravine 60 metres wide or greater, a strip on both sides of the stream measured from the high water mark to a point that is 10 metres beyond the top of the ravine bank.

Riparian Areas Development Permit Area 5-D includes the Riparian Assessment Areas associated with all streams within the Plan area, whether mapped or unmapped, including but not limited to the streams shown on Map 2.

Justification

Electoral Area D contains streams and riparian areas that directly or indirectly provide natural features, functions and conditions that support fish life processes. The *Fish Protection Act* and the *Riparian Areas Regulation* require local governments to protect these streams and riparian areas when exercising powers with respect to residential, commercial and industrial development. In the opinion of the Regional Board, this development permit area provides a level of protection that is comparable to the *Fish Protection Act* and the *Riparian Areas Regulation*.

Objectives

The objective of Development Permit Area 5-D is to protect the natural environment, its ecosystems and biological diversity. More specifically, this DPA will protect streams and riparian habitat primarily through the involvement of qualified environmental professionals and the identification of Streamside Protection and Enhancement Areas (SPEAs) that should remain free of development, including the disturbance of soils and vegetation.

Activities requiring a permit

- 11.5.1 A development permit must be obtained prior to:
- a. the subdivision of land;
 - b. residential, commercial, institutional or industrial development including:
 - i. the alteration of land;
 - ii. the disturbance of soil or vegetation; or
 - iii. construction of or addition to a building or structure; within a riparian assessment area.

Exemptions

- 11.5.2 Notwithstanding Section 11.5.1, a development permit is not required for the following:
- a. development that does not involve residential, commercial, institutional or industrial uses;
 - b. residential, commercial, institutional and industrial development that is demonstrated to be outside of a Riparian Assessment Area;
 - c. residential, commercial, institutional and industrial development within a riparian assessment area where the development is separated from the stream by a dedicated and developed public road right-of-way;
 - d. renovations or repair of a permanent structure on an existing foundation to an extent which does not alter or increase the building footprint area;
 - e. minor additions to an existing building or structure, such as an increase in floor area up to 25% of the existing footprint, provided that the addition is located on the side or part of the building or structure most distant from the stream;
 - f. development in accordance with a registered covenant or approved development permit that pertains directly and explicitly to riparian habitat protection, which
 - i. is registered in favour of the Fraser Valley Regional District and/or Provincial or Federal interests; and
 - ii. establishes a riparian buffer;
 - g. routine maintenance of existing landscaping or lawn and garden areas;

- h. removal of trees determined by a Certified Arborist or Registered Professional Forester (who is qualified to do tree risk assessment) to represent an imminent risk to safety of life and buildings;
- i. forestry activities on Crown land undertaken under an approved Forest Stewardship Plan approved by the Ministry of Natural Resource Operations in accordance with the *Forest & Range Practices Act*;
- j. riparian habitat enhancement or restoration works under the guidance of Provincial and Federal agencies;
- k. installation of seasonal play or recreational equipment on existing yard/lawn areas, such as sandboxes or swing sets;
- l. paths for personal use by the parcel owners, provided they do not exceed approximately 1.0 metre in width; are constructed of pervious natural materials with no concrete, asphalt, pavers or treated wood; do not involve structural stairs; require no removal of streamside vegetation; and do not impair stream bank stability;
- m. local and regional park facilities;
- n. emergency actions necessary to prevent, control or reduce immediate and substantial threats to life or property during flood, debris flood/flow, erosion, landslide, avalanche, stream avulsion and other geohazards events;
- o. repair, maintenance and improvement of flood protection infrastructure and all related ancillary or accessory works, regulated and approved by Federal or Provincial agencies;
- p. the development of an approved community water or sanitary sewer system that is not ancillary to residential, commercial or industrial development;
- q. Federal and Provincial regulated utilities, including railways, transmission lines or pipelines;
- r. public road or highway works;
- s. repair or replacement of an existing driveway, culvert or bridge and,
- t. the construction of a single storey, detached residential accessory building or structure which is not intended to be used for any “residential occupancy” and which had a floor area not exceeding 20 square metres (215 square feet) and where:
 - u. the building or structure is located as far from the stream as possible and in the location on the parcel that minimizes impacts to riparian habitat; and,
 - v. it is not possible to construct the building, structure or deck outside the riparian assessment area.

11.5.3 Where there is uncertainty regarding the location of development in relation to a Riparian Assessment Area or the nature of a stream, the Regional District may require: a. a plan prepared by a BC Land Surveyor or Qualified Environmental Professional to confirm whether the planned disturbance is within the Riparian Assessment Area; or b. a report prepared by a Qualified Environmental Professional to determine if the stream satisfies the definition criteria.

Guidelines

In order to achieve the objectives of Development Permit Area 5-D, the following Guidelines shall apply to the issuance of Development Permits:

Issuance of Development Permits

- 11.5.4 Each development permit application should, as a minimum, be accompanied by: a. where applicable, an Assessment Report prepared by a QEP in accordance with the Assessment Methods and Development Permit Area 5-D guidelines for the purpose of determining the applicable SPEA and other measures necessary for the protection of riparian areas; b. a scaled siting proposal clearly and accurately identifying all streams and water features, high water mark, top of bank, top of ravine bank, edge of wetland, riparian assessment area and the SPEA boundary in relation to existing and proposed property lines and existing and proposed development, as well as the locations of works and activities recommended in the Assessment Report; and, c. written certification that the proposed development is consistent with the Guidelines of Development Permit Area 5-D and the Riparian Areas Regulation, and identifying any mitigation or compensation measures that are consistent with the Guidelines, including measures that may be specified as Development Permit conditions.
- 11.5.5 Pursuant to the Riparian Area Regulation and the Local Government Act, the Assessment Report prepared by a QEP should specifically consider and make recommendations respecting: a. the siting of buildings, structures or uses of land; b. areas to remain free of development; c. the preservation, protection, restoration or enhancement of any specified natural feature or area; d. works to preserve, protect, or enhance a natural watercourse or other e. specified environmental feature; f. protection measures to be taken to preserve, protect, restore or enhance fish habitat or riparian areas, control drainage, or control erosion or protect the banks of watercourses; and, g. timing of construction to avoid or mitigate impacts.
- 11.5.6 Where a development permit relates to the subdivision of land, an Assessment Report prepared by a QEP should: a. identify adequate building sites - including but not limited to building locations; front, rear and side yard areas; site services including sewage disposal facilities and water supplies; access; and, parking - on each proposed lot; b. identify streams that may be impacted by the proposed development; and c. consider whether any natural watercourses should be dedicated pursuant to the *Local Government Act*.
- 11.5.7 The Regional District is authorized to issue a Development Permit after receiving: a. notification by the Ministry of Environment that Fisheries & Oceans Canada and the Ministry have been: i. notified of the development proposal; and, ii. provided with a copy of an assessment report which meets the requirements of the Riparian Areas Regulation; or, b. documentation demonstrating that Fisheries & Oceans Canada has, with respect to the proposed development, authorized the "harmful alteration, disruption or destruction" of fish habitat pursuant to Section 35 of the Fisheries Act or amendments thereto.
- 11.5.8 A development permit may include as a term or condition any recommendation made by QEP in an Assessment Report respecting:
- a. the siting of buildings, structures or uses of land;

- b. areas to remain free of development;
- c. the preservation, protection, restoration or enhancement of any specified natural feature or area;
- d. dedication of natural water courses to the Crown;
- e. works to preserve, protect, or enhance a natural watercourse or other specified environmental feature; and,
- f. protection measures to be taken to preserve, protect, restore or enhance fish habitat or riparian areas, control drainage, or control erosion or protect the banks of watercourses.

11.5.9 A development permit may impose terms and conditions respecting the:

- a. sequence and timing of construction including but not limited to timelines for completion of the works identified in the permit;
- b. co-ordination of geotechnical recommendations by a Qualified Environmental Professional or Professional Engineer licensed in Province of British Columbia;
- c. minor modification of a SPEA as generally described in the Riparian Area Regulation Implementation Guidebook where no impacts to fish habitat occur and as recommended in an Assessment Report by a Qualified Environmental Professional.

11.5.10 A development permit may vary or supplement a bylaw under the *Local Government Act* provided that the variance or supplement is in accordance with the objectives and guidelines of Development Permit Area 5-D.

Measures to Protect the Streamside Protection and Enhancement Area

11.5.11 Land shall be developed strictly in accordance with the development permit issued.

11.5.12 No building or structure of any kind should be located, no vegetation should be disturbed, and no soils should be removed or deposited within a Streamside Protection and Enhancement Area except in accordance with the development permit and Assessment Report.

11.5.13 The SPEA boundary should be clearly flagged, staked or otherwise marked during all development phases to avoid encroachment into the Streamside Protection and Enhancement Area.

Geohazards

11.5.14 Where a proposed development requires geohazard evaluation pursuant to a geohazard hazard development permit area or Section 56 of the *Community Charter*, the riparian assessment should be coordinated with the geohazard evaluation in order to provide a comprehensive development permit application.

Permit Security

11.5.15 The Regional District may require the applicant to provide security in the form of cash or an unconditional, irrevocable and automatically renewing letter of credit in cases where:

- a. security for the performance of conditions respecting landscaping is necessary;

- b. the Regional District considers that damage to the natural environment could result as a consequence of a contravention of a condition in a development permit;
 - c. the Regional District considers that unsafe conditions could result as a consequence of a contravention of a condition in a development permit; or,
 - d. the permit holder is required to retain, restore or replace native vegetation.
- 11.5.16 The amount of the security should be sufficient to cover the cost of any work that may be undertaken by the Regional District to correct deficient landscaping conditions, an unsafe condition, and damage to the natural environment that could reasonably be expected to result from the contravention of the permit.
- 11.5.17 A Letter of Undertaking signed and sealed by a Qualified Environmental Professional may be accepted in lieu of security where:
 - a. the nature of required works, such as landscaping, are minor and the risk of damage to the natural environment is low;
 - b. the Letter of Undertaking is signed and sealed by a Qualified Environmental Professional; and, the Qualified Environmental Professional will undertake the works and provide to the Regional District a post-construction certification and inspection report as outlined in Section 11.5.18.

Post-Construction Certification and Inspection

- 11.5.18 Upon completion of the works authorized by a development permit - and for certainty upon expiry of any timeline for completion of works established as a term or condition of a development permit - the holder of the permit must submit to the Regional District and the Ministry of Environment postconstruction certification from a QEP which:
 - a. certifies that the development has been carried out in accordance with the Assessment Report and that terms and conditions set out in the assessment report and the development permit have been properly implemented; or,
 - b. identifies and documents all instances of non-compliance with the assessment report and the development permit and any measures necessary to correct deficiencies, including any works that should be undertaken by the Regional District as contemplated by Section 11.5.16.
- 11.5.19 The requirement for post-construction certification and inspection may be waived by a condition in a development permit.

Offence

- 11.5.20 Failure to:
 - a. obtain a development permit where one is duly required; or,
 - b. develop land strictly in accordance with a development permit issued; are offences under the *Local Government Act* and are contrary to the bylaws, regulations or

policies of the Regional District. Upon summary conviction, penalties for offences may be up to the maximum set out in the Local Government Act.

- 11.5.21 Employees, officers and agents of the Regional District may enter, at all reasonable times, a property to inspect and determine whether the requirements of Development Permit Area 5-D and the terms and conditions of a development are being met.

Definitions

- 11.5.22 In DPA 5-D, the following terms have the meanings described below:

“Assessment Methods” means the assessment methods set out in the Schedule to the Riparian Areas Regulation.

“Assessment Report” means a report certified by a Qualified Environmental Professional and prepared in accordance with the Riparian Areas Regulation Assessment Methods and the guidelines of Development Permit Area 5-D to assess the potential impact of a proposed development in a riparian assessment area.

“development” includes the alteration of land, the disturbance of soil or vegetation, and construction of or addition to buildings and structures.

“high water mark” means the visible high water mark of a stream where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the stream a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself, and includes the active floodplain.

“Qualified Environmental Professional” and “QEP” mean a qualified environmental professional as defined in the Riparian Areas Regulation.

“ravine” means a narrow valley with an average grade on either side greater than 3:1 measured between the high water mark of the watercourse contained in the valley and the top of the valley bank, being the point nearest the watercourse beyond which the average grade is less than 3:1 over a horizontal distance of at least 15 metres measured perpendicularly to the watercourse;

“Riparian Assessment Area” means:

- a. for a stream, the 30 metre strip on both sides of the stream, measured from the high water mark;
- b. for a ravine less than 60 metres wide, a strip on both sides of the stream measured from the high water mark to a point that is 30 metres beyond the top of the ravine bank; and
- c. for a ravine 60 metres wide or greater, a strip on both sides of the stream measured from the high water mark to a point that is 10 metres beyond the top of the ravine bank.

“Riparian Areas Regulation” means B.C. Reg. 376/2004 and amendments thereto.

“Streamside Protection and Enhancement Area” and “SPEA” mean an area:

- a. adjacent to a stream that links aquatic to terrestrial ecosystems and includes both existing and potential riparian vegetation and existing and potential adjacent upland vegetation that exerts an influence on the stream; and,
- b. the size of which is determined in accordance with the Riparian Areas Regulation on the basis of an Assessment Report provided by a Qualified Environmental Professional.

“stream” includes any of the following that provides fish habitat:

- a. a watercourse, whether it usually contains water or not;
- b. a pond, lake, river, creek or brook; or,
- c. a ditch, spring or wetland that is connected by surface flow to something referred to in paragraph (a) or (b).

12.0 TEMPORARY USE PERMITS



Innergex Upper Harrison Construction &
Staging Site, Photo: ihikebc.com

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Temporary Use Permits

Division 8 of the Local Government Act allows for the issuance of Temporary Use Permits in areas designated within an Official Community Plan. A Temporary Use Permit may:

- allow a use not permitted by a zoning bylaw.
- be issued for a period of up to three (3) years and renewed, at the discretion of the Regional Board, only once.

Terms and Conditions

The Regional Board may impose special conditions under which the temporary use may be carried on, allow and regulate the construction of buildings or structures related to the temporary use, and require a security to guarantee the performance of the terms of use of the Temporary Use Permit.

Security

The security may be in the form of cash or a letter of credit, the amount of which is to be determined by the Regional Board. A major purpose of collecting the security is to ensure that the land is returned to the condition prior to issuance of the permit when the permit has expired. The Regional Board may utilize the security in the event that the conditions of the permit are not met.

Procedure and Public Notification

Sections 494 thru 497 of the *Local Government Act* and FVRD Development Procedures Bylaw specify the process by which a temporary use permit may be issued. Public notification and input is a central part of the process.

Notification of the Regional Board's consideration of a permit application must be mailed out to owners and occupiers of property within a specified distance of the subject land and placed in a local newspaper. As well, the Board will normally require the holding of a public information meeting to present the application to the community and hear the concerns of residents.



Policy

12.1.1 The Official Community Plan area, as shown on Schedule 1 - Boundary of Plan Area, is designated for the issuance of Temporary Use Permits.

12.1.2 A Temporary Use Permit may be issued for the following:

- a. special events which are of limited duration and which will not preclude or compromise future permitted uses on the proposed site of the temporary use;
- b. short-term industrial activity such as portable sawmills, heavy equipment storage, log home building operations and construction yards related to specific industrial projects of limited duration;
- c. a temporary sand and gravel extraction where a permit has been issued pursuant to FVRD Commercial Gravel Operations Bylaw, if required.
- d. uses which comply with the designation policies but where appropriate zoning does not presently allow for such uses;
- e. transitional uses, or uses where uncertainty exists respecting appropriateness or viability of the use, and where it is premature to decide upon rezoning and long-term land use rights.

12.1.3 The Regional Board will normally require the holding of a public information meeting prior to the issuance of a Temporary Use Permit.

12.1.4 As a condition of issuing a Temporary Use Permit, the Regional Board will normally require a security in an amount adequate to facilitate completion of permit conditions and the return of the land to its pre-existing state.

13.0 INTERPRETATION

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INTERPRETATION

Unless otherwise stated in this Plan, the following terms have the meaning defined below. Terms not defined in this section carry the same meaning as in Provincial statutes and the bylaws of the Fraser Valley Regional District.

ACCESS means the way, or means of connection, between lands adjacent to a public roadway and the public roadway; which connection provides access to and from the private lands. Access may also mean the access permitted and specified in a Highways Access Permit issued by the Ministry of Transportation & Infrastructure; see also **PUBLIC ACCESS**.

ACCESSORY BOARDING USE means a use accessory to a residential use and contained within the principal residence where no more than two (2) sleeping rooms, which do not contain cooking facilities, are rented for the accommodation of no more than four (4) persons.

ACCESORY FARM EMPLOYEE DWELLING means a building on a farm under the BC Assessment Act, used as a home or residence by a full time employee of the farm and his or her family members provided the use meets the requirements of the Agricultural Land Commission Act, the Agricultural Land Reserve Use, Subdivision and Procedure Regulation and the orders of the Agricultural Land Commission.

ACCESSORY RESIDENTIAL USE means a use accessory to a commercial use, mobile home park, a tourist accommodation use, or an industrial use, where the building or buildings include one dwelling unit for the accommodation of the owner, operator or manager.

AGGREGATE EXTRACTION USE means a use involving the extraction and removal of aggregate materials from a lot and the subsequent reclamation and revegetation of the site. It includes sufficient breaking to allow the material to be transported from the site, but does not include processing of aggregates.

AGRI-TOURISM means a tourist activity, service or facility accessory to an agricultural activity and is classified as a farm use under the BC Assessment Act; may include: tours, farm retail sales, food and beverage service provided the use meet ALC regulations.

ALLUVIAL FAN means the alluvial deposit of a stream where it issues from a steep mountain valley or gorge upon a plain or at the junction of a tributary stream with the main stream.

ANCILLARY or ACCESSORY USE means a use auxiliary or subordinate to the principal use permitted in the land use designation.

APPROVAL means approval in writing.

APPROVED COMMUNITY SANITARY SEWER SYSTEM means a system for the collection, treatment, and disposal of domestic sewage, which has a design capacity of at least 22,700 litres per day and which is approved as a Class “A” system under the Municipal Sewage Regulation of the Environmental Management Act, and which is owned, operated and maintained by the Fraser Valley Regional District.

APPROVED COMMUNITY WATER SYSTEM means a system of waterworks which is approved under the *Drinking Water Protection Act* and its associated regulations, and which is owned, operated and maintained by either:

- an improvement district pursuant to the *Local Government Act*;
- a water utility pursuant to the *Water Utility Act*;
- the Fraser Valley Regional District; or
- a strata corporation pursuant to the *Strata Property Act* with a minimum of five strata lots served by the water system.

ARTISAN-CRAFT WORKSHOP USE means an activity of a gainful nature which is carried on by an artisan who practices, cultivates or instructs in craftsmanship and/or arts; includes artists’ and potters’ studios, workshops for the assembly and manual repair of specialized equipment by skilled artisans, musicians, horologists and the like, antique furniture and painting, restoration and repair, glass blowing, wood or stone carving, and all other similar activities; specifically excludes automobile, trailer and bicycle workshops, yards for trade and landscape contractors, boat building, service establishments for small appliances, office and amusement machinery and audio-visual equipment, food processing, personal service establishments, gunsmithing, locksmithing and similar pursuits, taxidermy, tanneries and pet breeding or care facilities, laboratories and professional offices, audio-visual production services and all other related occupations and businesses.

ASSEMBLY USE means a use of land that provides open space, buildings, or structures for private gatherings and assembly of people; which may be centered around education, religious gathering and worship or fraternal organization; and may include retreats, camps, private educational centre, meeting hall, and associated temporary lodging, boarding and accommodation use; in addition to associated residential use.

ASSOCIATED RESIDENTIAL LIMITED USE means a variety of uses associated with, but clearly ancillary or accessory to, a residential use; excludes overnight accommodation uses.

ASSOCIATED RESORT USE means a variety of uses associated with, but clearly ancillary or accessory to a resort use; may include common amenities such as clubhouse, pool, recreational facilities, meeting room and other such similar use, exclusively by strata owners or resort users.

ASSOCIATED RURAL RESIDENTIAL USES means a variety of uses associated with, but clearly ancillary or accessory to, a rural residential use; includes bed and breakfast operations, boarding use, home occupations, cottage industries, artisan craft workshop, and small scale enterprise; unless prohibited by the zoning bylaw or, where land is located within the Agricultural Land Reserve, unless prohibited by under the Agricultural Land Reserve Use, Subdivision and Procedure Regulation.

BED AND BREAKFAST means a use accessory to a residential use and contained within the principal residence in which no more than three (3) sleeping rooms without cooking facilities, are used for the temporary accommodation of the traveling public, and in which breakfast but no other meal may be served to the registered guests.

BUFFER means any device arranged and maintained to screen or separate adjoining land uses or properties, and includes any combination of setbacks, existing vegetation, ditches, roads, landscaping, berming and fencing.

BUILDING BYLAW means any building bylaw applicable to Electoral Area “E” of the Fraser Valley Regional District enacted pursuant to the Local Government Act.

COMMERCIAL CAMPGROUND USE means a commercial use of land for the purpose of providing two or more recreational camping spaces for recreational trailers, or motor homes, together with all supporting, common leisure and service facilities for the exclusive use of, and temporary occupancy for part of the year only, holiday-makers; may include: a recreational camping club incorporated under the Society Act; but does not include a social club, interest developments, strata developments, natural campgrounds, holiday park, mobile home park, motel, campground or camp licensed under the *Community Care Facility Act*.

COMMERCIAL USE means a use providing for the retail sale, repair and servicing of household, non-household, personal and non-personal goods, or for providing services to people.

CONSERVATION USE means the preservation or protection of natural resources and assets in their natural state, including the habitat of birds, fish and other wildlife. For lands within the Provincial Agricultural Land Reserve and designated CONSERVATION USE in this Plan, Conservation Use includes:

- biodiversity conservation, passible recreation, heritage, wildlife and scenery viewing
- purposes, as long as the area occupied by any associated buildings and structures does not exceed 100m² for each parcel;
- use of open land park established by a local government; and,
- ecological reserve, park, protected area, wildlife management area and recreation area;

in accordance with Section 3 of the Agricultural Land Reserve Use, Subdivision and Procedure Regulation.

CONTIGUOUS, when applied to two areas of development, means that they abut or touch each other.

COTTAGE INDUSTRY USE means an activity of a gainful nature which is not an offensive trade and which occupies a building accessory to residential and agriculture land uses, which includes ancillary retail and office facilities and which does not employ or involve more than three operators or employees, the principal of whom shall be resident on the parcel. Cottage industry use includes custom stone, textile, wood and metal working facilities, wholesale bakeries, plants, processing and packing food grown or raised on the parcel, cottage wineries, locksmiths, gunsmiths, tinsmiths, print shops, audio visual and photographic studios, small appliances and office machinery repair, non-motorized bicycle repair shops.

DEBRIS FLOOD means a channelized slope hazard involving uncontrolled water flow which can result in water damage to unprotected buildings, erosion, deposition of gravel and timber debris and silting damage.

DEBRIS FLOW means a channelized slope hazard generally involving considerable amounts of sediments and debris, including trees and boulders, with small amounts of water, and is relatively confined to areas at the mouth of gullies, normally near the apex of the alluvial fans.

DESIGNATION means the land use designations set out in Section 5 of this Plan.

DEVELOPMENT APPLICATION means an application pursuant to an enacted provision of a Responsible Authority which affects the development of any land within the area covered by this plan.

ENVIRONMENTAL IMPACT ASSESSMENT means a field-based technical assessment conducted, prepared and supported by a **qualified professional** including but not limited to a professional biologist, in accordance with the Ministry of Environment recommended methodologies and best practices, which assessment provides:

- an inventory of fish and wildlife species and their habitats; threatened, rare and endangered species and their habitats; and, other sensitive ecosystems in the proposed
- development area, and in adjacent habitats or ecosystems which may be impacted by the proposed development area; and,
- recommendations for the avoidance then mitigation of impacts associated with a proposed development area.

FARM USE means a use providing for the growing, rearing, producing and harvesting of agricultural products and includes the processing on an individual farm of the products harvested, reared or produced on that farm only; and, retail sale of agricultural products which are produced on the same parcel or on other parcels within the area that farm and are managed as part of the same farm operation. For lands within the Provincial Agricultural Land Reserve and designated AGRICULTURAL in this Plan, farm use also includes activities designated as farm use pursuant to the *Agricultural Land Reserve Act* and Section 2 of the *Agricultural Land Reserve Use, Subdivision and Procedure Regulation*.

FLOODPLAIN means an area of land, whether flood-proofed or not, which is susceptible to flooding by a watercourse, lake, ocean or other body of water.

FLOODPROOFING means the alteration of land or structures and contents to minimize flood damage by raising the elevation of the land above the maximum elevation of the local flood level as determined by *Fraser Valley Regional District Floodplain Management Bylaw 0681, 2005*, or by the construction of buildings and structures to withstand the effects of flooding and flood waters, with all habitable floors located at elevations above the flood construction level as determined by *Fraser Valley Regional District Floodplain Management Bylaw 0681, 2005*.

FORESTRY USE means the cutting and preliminary grading of forest products for shipment; includes temporary or portable sawmills or shake mills processing materials cut in the local area.

GEOHAZARD STUDY means a study prepared by a qualified professional engineer with training and experience in geotechnical engineering and licensed in the Province of British Columbia which interprets the physical conditions of surface or subsurface features in a study area with respect to stability, potential seismic disturbance, interrelated chemical activity, and size and volume analysis; specifically addresses the possible effects of physical alterations or deformations of the land related to proposed building or other projects; and may establish standards for siting and construction of proposed buildings or the nature and location of proposed uses. Geohazard studies must meet the requirements outlined in *FVRD – EGBC GeoHazard Assurance Statement*.

HIGHWAY COMMERCIAL means a commercial use located adjacent, or nearly adjacent, to routes of travel of regional significance which is intended to serve the needs of an itinerant motoring population; includes service stations, gas bars, restaurants and tourist information booths, but excludes major tourist recreation commercial uses, local and local tourist commercial uses.

HOLIDAY PARK means any lot or parcel operated and maintained for the sole purpose of providing two or more recreational camping sites or lots, park model sites or lots, or holiday home sites or lots, together with all common leisure, services and supporting facilities for the exclusive use of and occupancy for part of the year only by holiday-makers who are the owners or lessees of the said sites or lots; may include bare land strata lots under the Strata Property Act of the Province of British Columbia, or a cooperative ownership recreational club incorporated under the Society Act of the Province of British Columbia, or a three (3) year or longer lease agreement approved by the Responsible Authority, but does not include a social club, mobile home park, motel, commercial campground, natural campground or a camp licensed under the Community Care Facilities Act of the Province of British Columbia.

HOME OCCUPATION USE means a use accessory to a single family residential use where the householder carries on an occupation, craft or profession within the residential dwelling unit.

IMPERVIOUS AREA means the total area of impervious surface expressed as a percentage of the total area of the parcel of land. Impervious surfaces are those which water cannot penetrate such as buildings, paved roads, and driveways.

INDUSTRIAL USE means the use of land, buildings and structures for the manufacturing, processing, fabricating, repair, packaging or assembly of goods; warehousing or bulk storage of goods; and related accessory uses.

LOCAL COMMERCIAL USE means a commercial use intended to serve the day-to-day needs of the local population residing in the vicinity of the local commercial use; includes general stores, convenience stores, small personal service establishments and artisan-craft workshop uses.

LOCAL INSTITUTIONAL means an institutional use, which provides services for primarily local residents including civic, educational, fire halls, community and cultural centres, and other similar uses, and is established by local government, provincial or federal government, parks board or library board.

LOCAL TOURIST COMMERCIAL USE means the use of land for commercial establishments intended primarily to serve the day-to-day needs and leisure time activities of a visitor population temporarily accommodated in the vicinity of the local tourist commercial use; includes local tourist attraction uses and artisan craft workshop uses, but excludes major tourist recreation commercial uses;

LOW DENSITY COMMERCIAL RECREATION means low-impact recreation uses in a natural setting and involving wilderness appreciation and related activities carried out on a seasonal or temporary basis; includes ranches, lodges, recreation camps, natural campgrounds, and private recreational, institutional or cultural facilities; excludes commercial campgrounds and holiday parks.

MAJOR INSTITUTIONAL means a large scale use of land by a governmental or administrative body, including Department of National Defense lands, correctional facilities and other government lands, catering to a regional, provincial or national populations.

MAJOR TOURIST RECREATION COMMERCIAL USE means a commercial use involving, though not limited to, extensive open air commercial recreation facilities for active physical participation, which is intended to serve the regional population and which would have transportation requirements of regional significance; it includes amusement parks, marinas, display gardens and golf courses, but excludes low-density commercial recreation uses and natural camping ground use.

MARINA means the use of land, buildings, structures, accessory uses incidental to a marina use, and the surface of water for providing docking, berths, and facilitates for launching and storage of pleasure boats on water or land.

MAXIMUM DENSITY means the maximum number of parcels achievable by subdivision from parent parcel for the purposes of establishing a resort residential development.

MAXIMUM SITE COVERAGE means the proportion of a parcel of land which is used for buildings, structures, driveways, patios, swimming pools and other development covering the surface of land.

MOBILE HOME PARK means a residential use of a lot on which two or more mobile homes are located.

MULTI-FAMILY RESORT RESIDENTIAL USE means a resort residential use consisting of two (2) or more attached dwelling units occupied as residences or seasonal residences for one family per dwelling unit, together with accessory common and private amenity facilities which may include a clubhouse and other private recreational and social amenities.

NATURAL BOUNDARY means the visible high-water mark of any lake, river, stream or other body of water, where the presence and action of the water are so common and usual, and so long continued in all ordinary years as to mark upon the soil of the bed or the lake, river, stream or other body of water, a character distinct from that of the banks thereof in respect to vegetation, as well as in respect to the nature of the soil itself.

NATURAL CAMPGROUND USE means a use of land for camp sites on an overnight rental basis, which involves no buildings, structures or service connections; excludes commercial campgrounds and holiday parks, sites owned or leased under the Strata Property Act, and camps licensed under the Community Care Facility Act of the Province of British Columbia.

Natural Campground Use located within the Agricultural Land Reserve is permitted under the Agricultural Land Reserve Use, Subdivision and Procedure Regulation under certain conditions as agri-tourism use on land that is classified as farm under the *Assessment Act*. The regulations of the Agricultural Land Commission should be consulted to determine limitations and conditions for locations within the Agricultural Land Reserve.

NATURAL GROUND means the level of the surface of the ground which occurs or occurred naturally and before any excavation or construction.

OFFICIAL COMMUNITY PLAN means a plan prepared and adopted by a Regional Board by bylaw pursuant to the Local Government Act which applies to all or parts of an electoral area of a Regional District. It forms the basis for preparing development bylaws in an electoral area.

ON-SITE SERVICES means the provision of an individual water supply and on-site sewage disposal in accordance with the standards of the Responsible Authorities pursuant to the requirements of the Public Health Act, the Environmental Management Act, and bylaws of the Fraser Valley Regional District.

PARK and **PARK RESERVE** means open space dedicated to the preservation of the natural environment and recreation use, including camping and a range of facilities associated with park activities.

PLAN AMENDMENT means a bylaw amending a schedule of this Plan prepared and adopted pursuant to the Local Government Act.

PUBLIC ACCESS means the unrestricted right of the general public to cross lands without the need for any approvals or specified permits.

PUBLIC USE means the use of land by a government or administrative body intended primarily to serve the day-to-day needs of the population residing in the local vicinity, and includes civic, utility, institutional, recreation and conservation uses but excludes commercial recreation use.

QUALIFIED PROFESSIONAL means an applied scientist or technologist specializing in a relevant applied science or technology including, but not limited to, agrology, forestry, biology, engineering, geomorphology, geology, hydrology, hydrogeology or landscape architecture, and, who is registered in British Columbia with their appropriate professional organization and acting under that association's Code of Ethics is subject to disciplinary action by that association; and, who, through demonstrated suitable education, experience, accreditation and knowledge relevant to the particular matter, may be reasonably relied on to provide advice within their area of expertise.

RECREATION USE means public park, conservation area, recreation area and ancillary uses as permitted by the Responsible Authorities; excludes commercial recreation uses.

RESIDENTIAL USE means the use of land for residences, providing for the accommodation and home life of a person or persons at a maximum density of one unit or more in accordance with provisions set out in this plan.

RESIDENTIAL OCCUPANCY means a "residential occupancy" as set out and defined in the British Columbia Building Code.

RESORT RESIDENTIAL USE means a resort residential use consisting of one (1) or more dwelling units occupied as a residence or seasonal residence for one family per dwelling unit, together with accessory common and private amenity facilities which may include a clubhouse and other private recreational and social amenities.

RESOURCE EXTRACTION means the pulling out or drawing out of primary forest, mineral and other natural resources and includes mining, the extraction of aggregate materials, forestry, fishing and associated local transportation uses.

RESOURCE INDUSTRIAL USE means a use related to the extraction, primary processing, and transport of products from primary natural resource materials; includes log booming, sawmills, and gravel sorting and screening plants and similar related industries

RESPONSIBLE AUTHORITY means a governmental and/or administrative body, operating in part or in total within the region, which is charged with or capable of enacting government provisions affecting the development of land or the construction of public works within the region; includes a member municipality, a Regional District, the Province of British Columbia, the Government of Canada, and their agencies.

SINGLE FAMILY DWELLING means a structure providing for a single family residential use for person or persons, includes accessory residential uses as well as mobile and modular homes where permitted in the zoning bylaw.

SINGLE FAMILY RESIDENTIAL USE means the use of a building or part thereof as a single family dwelling with a maximum density of one single family dwelling unit per parcel.

SMALL SCALE ENTERPRISE means an artisan craft workshop, hobby greenhouse, or cottage industry which is accessory use in a rural or limited use designation, unless prohibited by a zoning bylaw.

SPECIAL EVENT means the use of land for temporary commercial or industrial use including fairs or concerts, live performances, campsites, assembly use, recreation use, emergency operations and other event-related land uses.

TEMPORARY USE means a commercial or industrial use for which a Temporary Use Permit pursuant to Section 921 of the Local Government Act is issued.

USEABLE LAND means, for the purpose of computing the number of sites, strata lots or dwelling units permitted in a resort development, all of the lot area which can be used for camping, holiday homes, resort residential uses and associated activities; it shall exclude the site for a residence of the owner, manager or employee, land with a slope greater than 25%, land lacking adequate natural drainage of surface water, sensitive habitat and lakes, ponds, and watercourses;

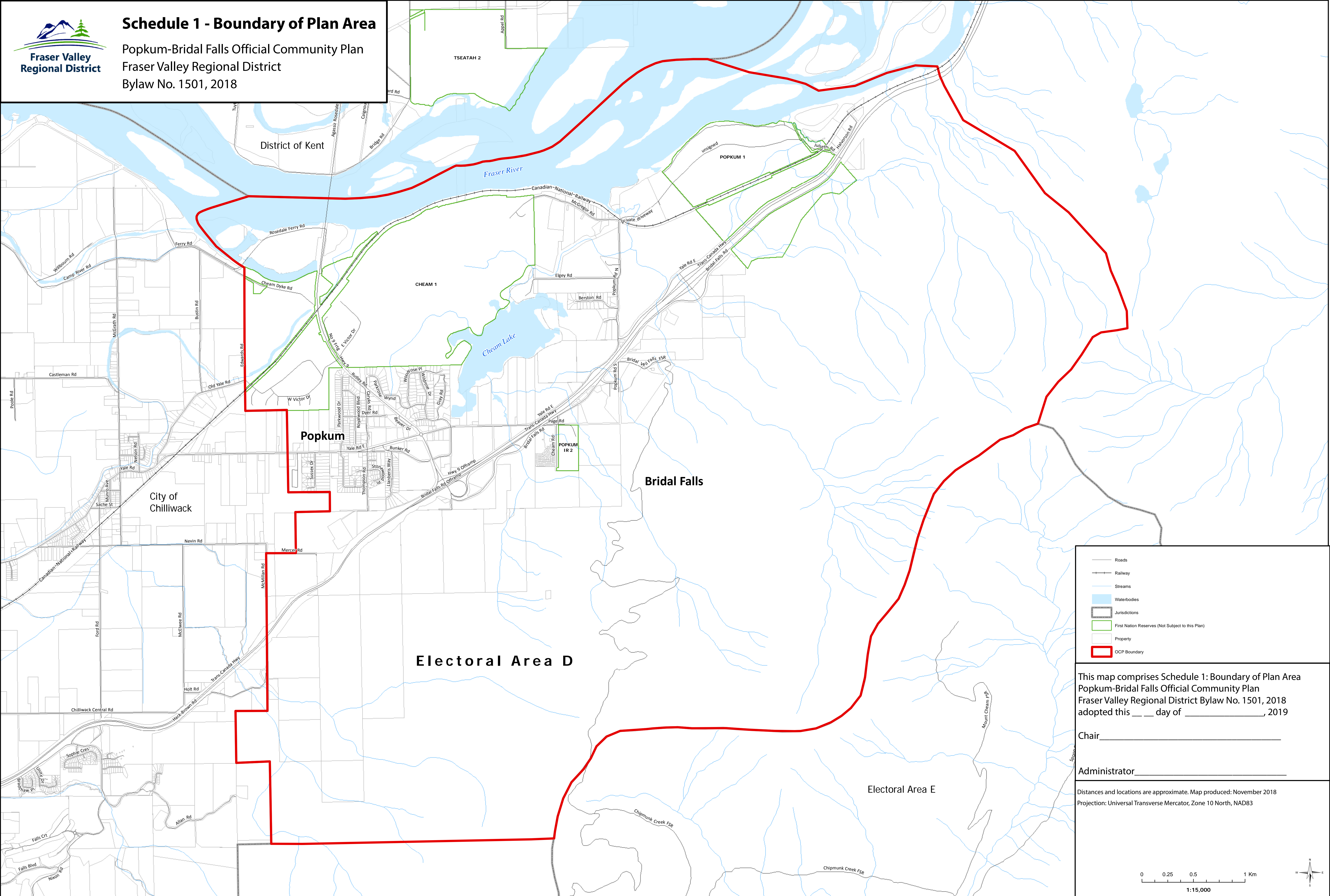
WATERCOURSE means any natural depression with well-defined banks and a bed zero point six (0.6) metres or more below the surrounding land serving to give direction to a current of water at least six (6) months of the year or having a drainage area of two (2) square kilometres or more upstream of the point of consideration.

WETLAND means land that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal conditions that supports, vegetation typically adapted for life in saturated soil conditions, including, swamps, marshes, bogs, fens, estuaries and similar areas that are not part of the active floodplain of a stream, that may not contain surface water, and that may not be connected to a stream.



Schedule 1 - Boundary of Plan Area

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



Legend:

- Roads
- Railway
- Streams
- Waterbodies
- Jurisdictions
- First Nation Reserves (Not Subject to this Plan)
- Property
- OCP Boundary

This map comprises Schedule 1: Boundary of Plan Area
Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District Bylaw No. 1501, 2018
adopted this ____ day of _____, 2019

Chair _____

Administrator _____

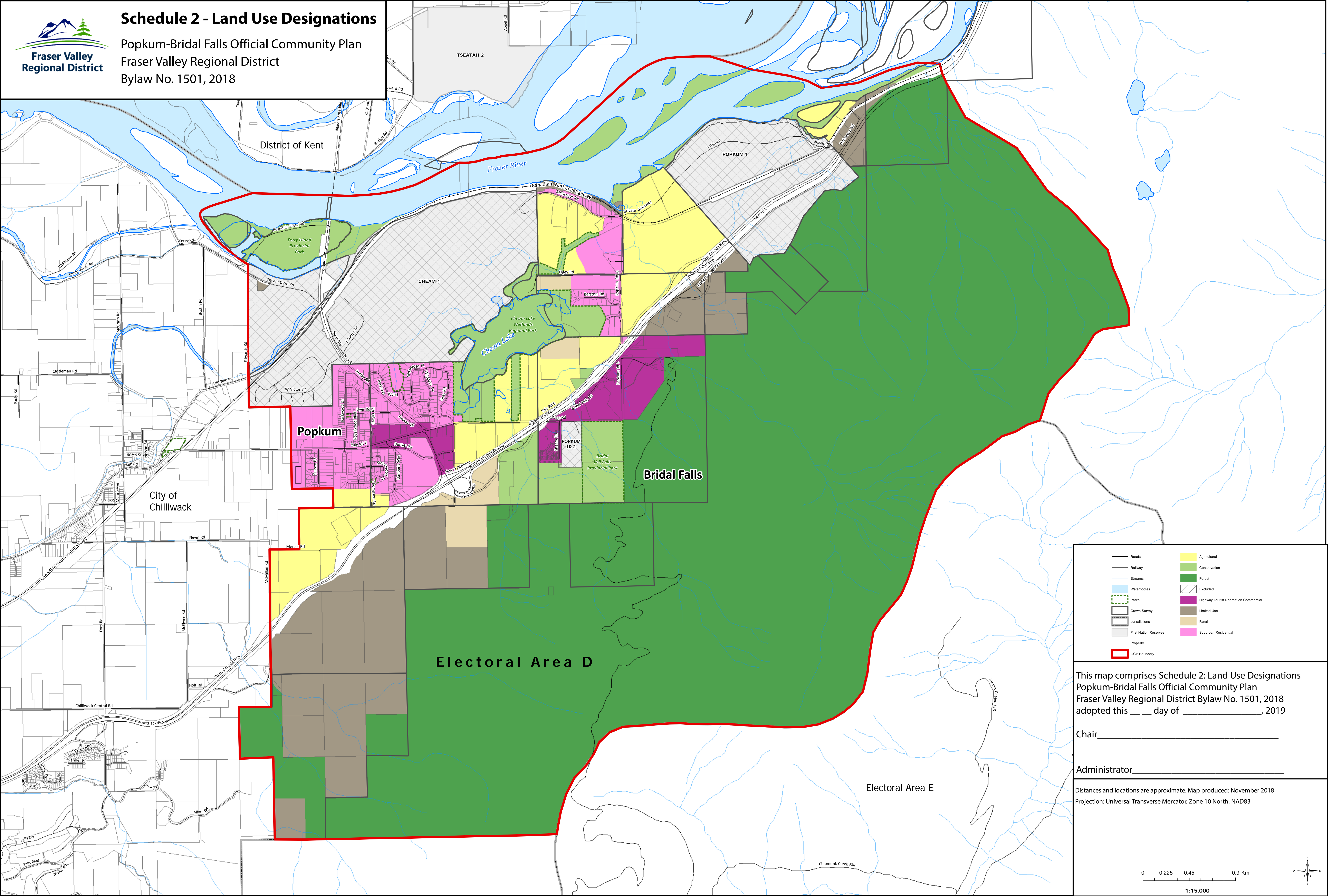
Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83

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Schedule 2 - Land Use Designations

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018

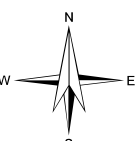
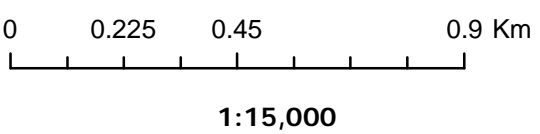


This map comprises Schedule 2: Land Use Designations
Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District Bylaw No. 1501, 2018
adopted this ____ day of _____, 2019

Chair _____

Administrator _____

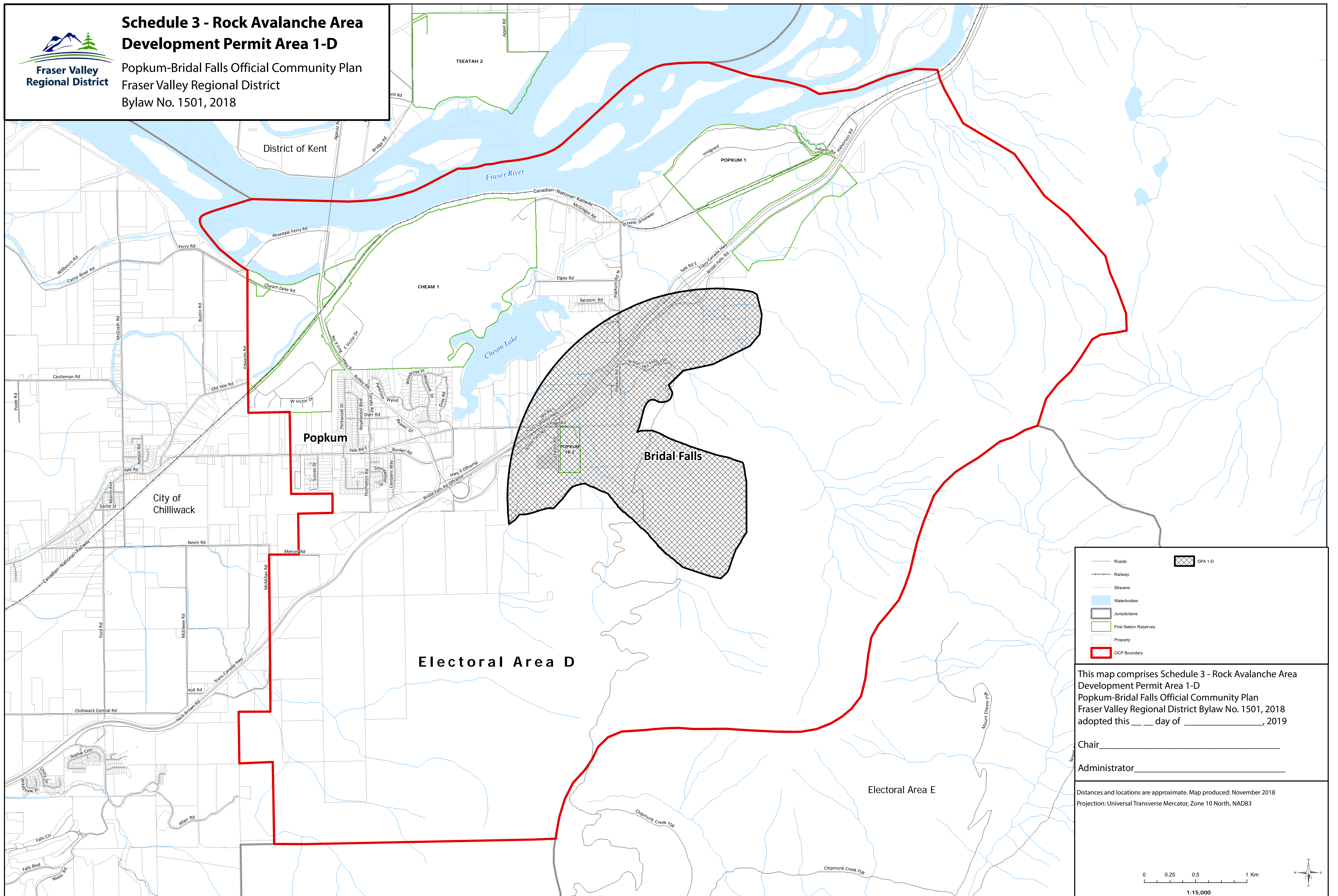
Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83





Schedule 3 - Rock Avalanche Area Development Permit Area 1-D

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



Roads

Railway

Streams

Waterbodies

Jurisdictions

First Nation Reserves

Property

OCP Boundary

DPA 1-D

This map comprises Schedule 3 - Rock Avalanche Area
Development Permit Area 1-D
Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District Bylaw No. 1501, 2018
adopted this ____ day of _____, 2019

Chair _____

Administrator _____

Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83

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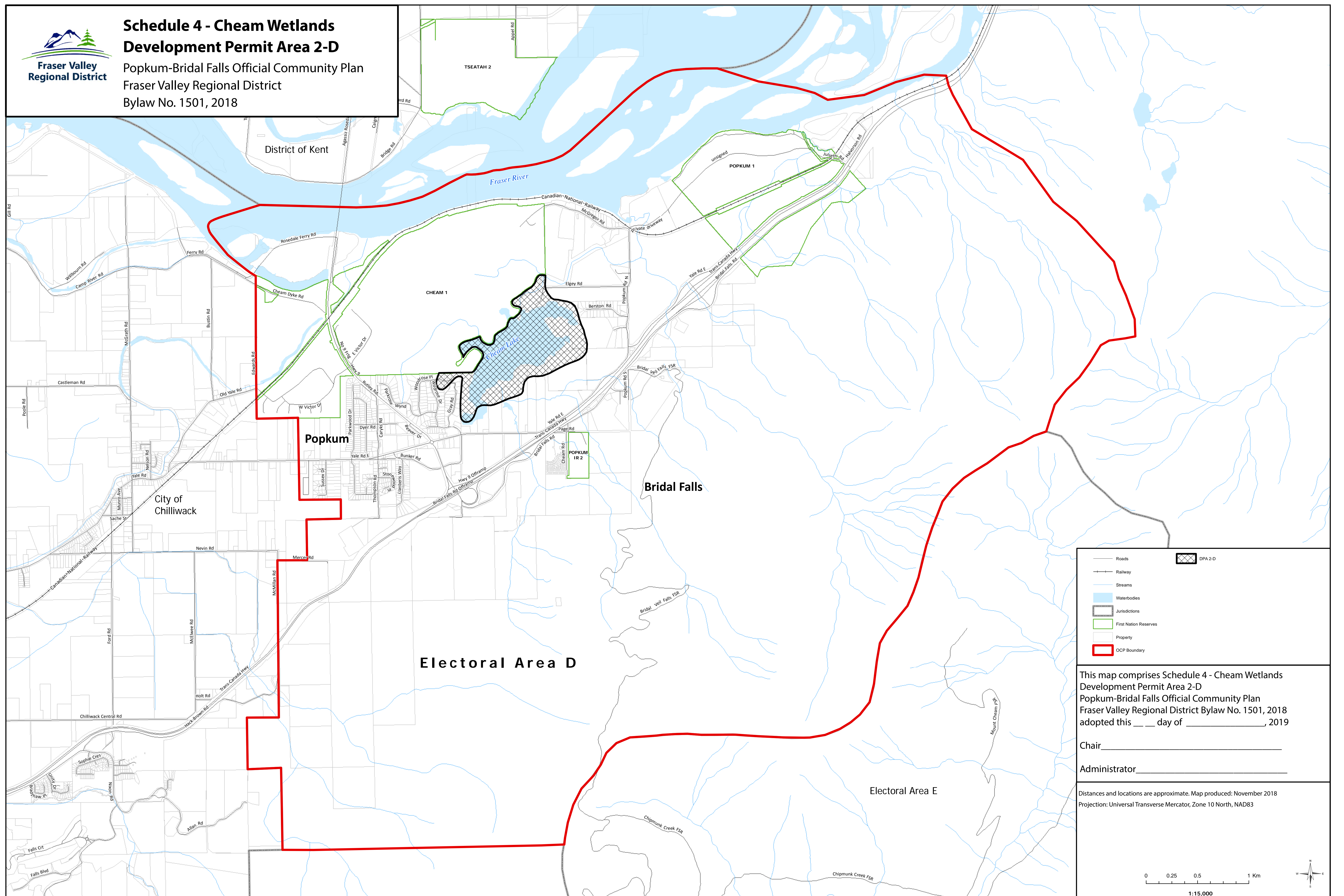
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Schedule 4 - Cheam Wetlands Development Permit Area 2-D

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



Legend:

- Roads
- Railway
- Streams
- Waterbodies
- Jurisdictions
- First Nation Reserves
- Property
- OCP Boundary
- DPA 2-D

This map comprises Schedule 4 - Cheam Wetlands
Development Permit Area 2-D
Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District Bylaw No. 1501, 2018
adopted this ____ day of _____, 2019

Chair _____

Administrator _____

Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83

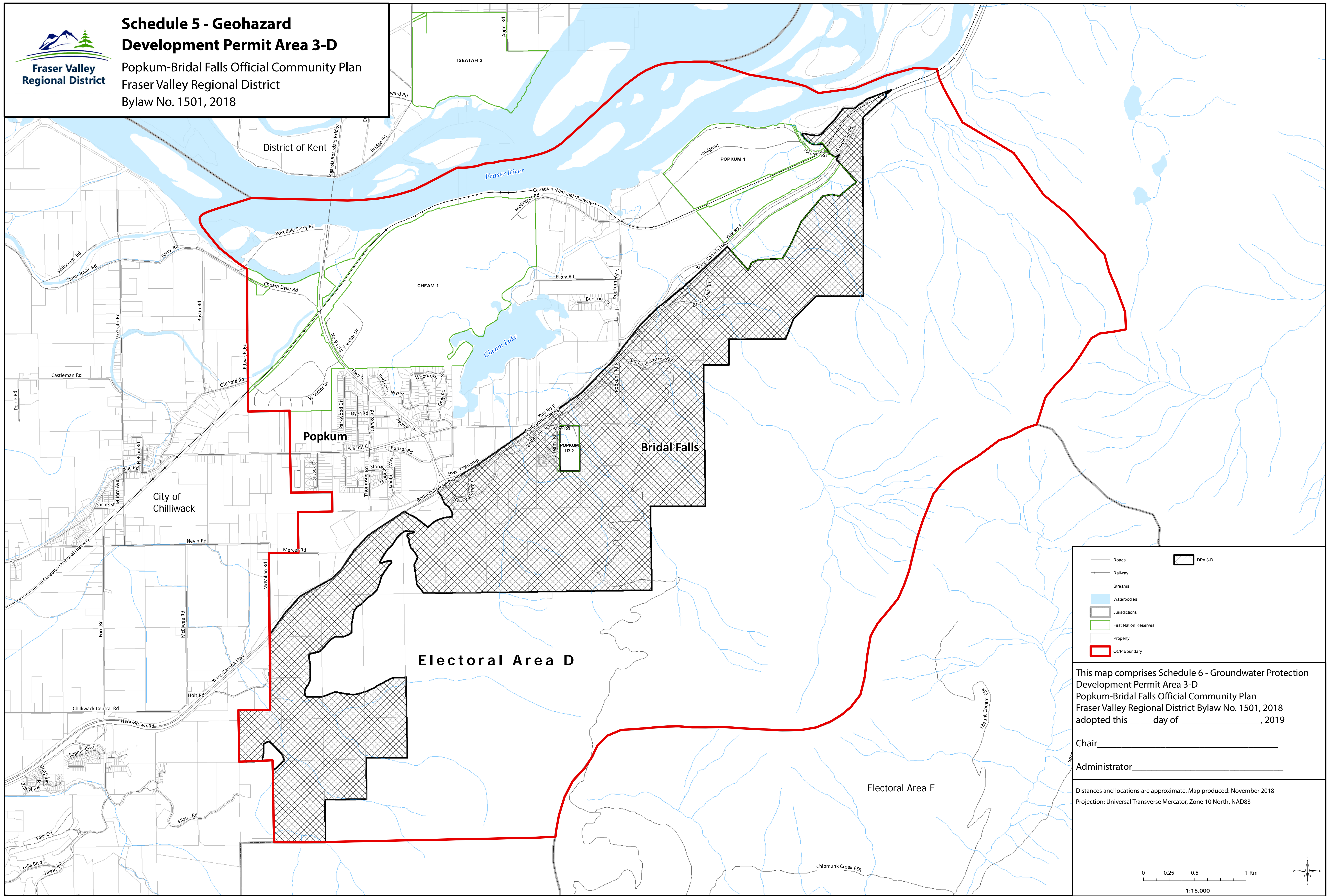
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Schedule 5 - Geohazard Development Permit Area 3-D

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



Roads

Railway

Streams

Waterbodies

Jurisdictions

First Nation Reserves

Property

OCP Boundary

DPA 3-D

This map comprises Schedule 6 - Groundwater Protection
Development Permit Area 3-D
Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District Bylaw No. 1501, 2018
adopted this ____ day of _____, 2019

Chair _____

Administrator _____

Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83

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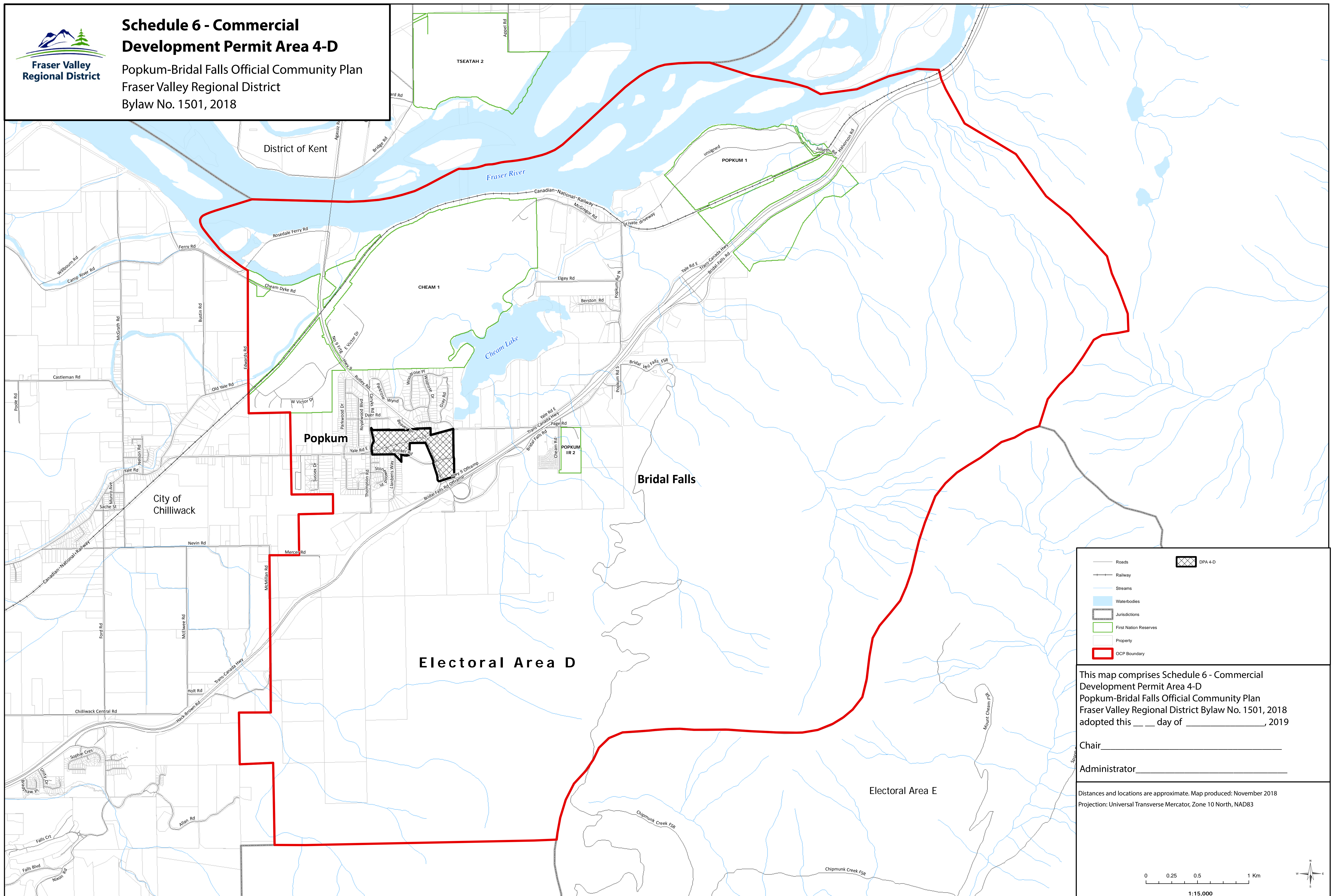
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Schedule 6 - Commercial Development Permit Area 4-D

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



Roads

Railway

Streams

Waterbodies

Jurisdictions

First Nation Reserves

Property

OCP Boundary

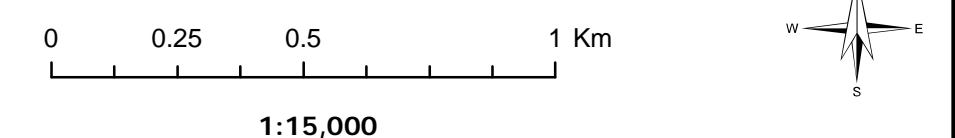
DPA 4-D

This map comprises Schedule 6 - Commercial
Development Permit Area 4-D
Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District Bylaw No. 1501, 2018
adopted this ____ day of _____, 2019

Chair _____

Administrator _____

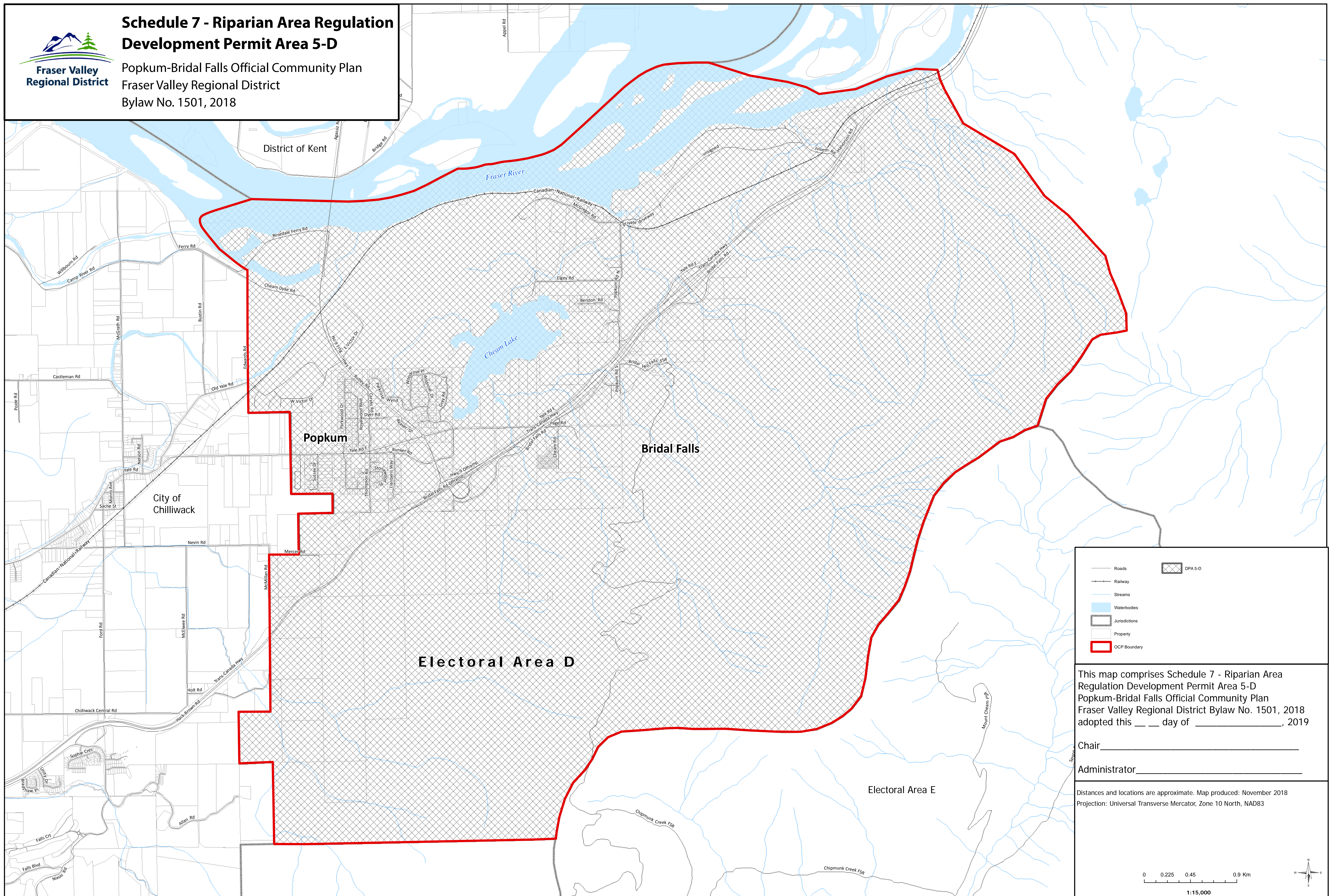
Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83





Schedule 7 - Riparian Area Regulation Development Permit Area 5-D

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



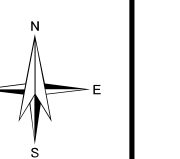
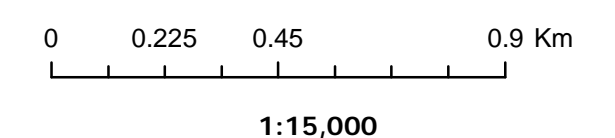
- Roads
- Railway
- Streams
- Waterbodies
- Jurisdictions
- Property
- OCP Boundary
- DPA 5-D

This map comprises Schedule 7 - Riparian Area Regulation Development Permit Area 5-D Popkum-Bridal Falls Official Community Plan Fraser Valley Regional District Bylaw No. 1501, 2018 adopted this __ __ day of ____, 2019

Chair _____

Administrator _____

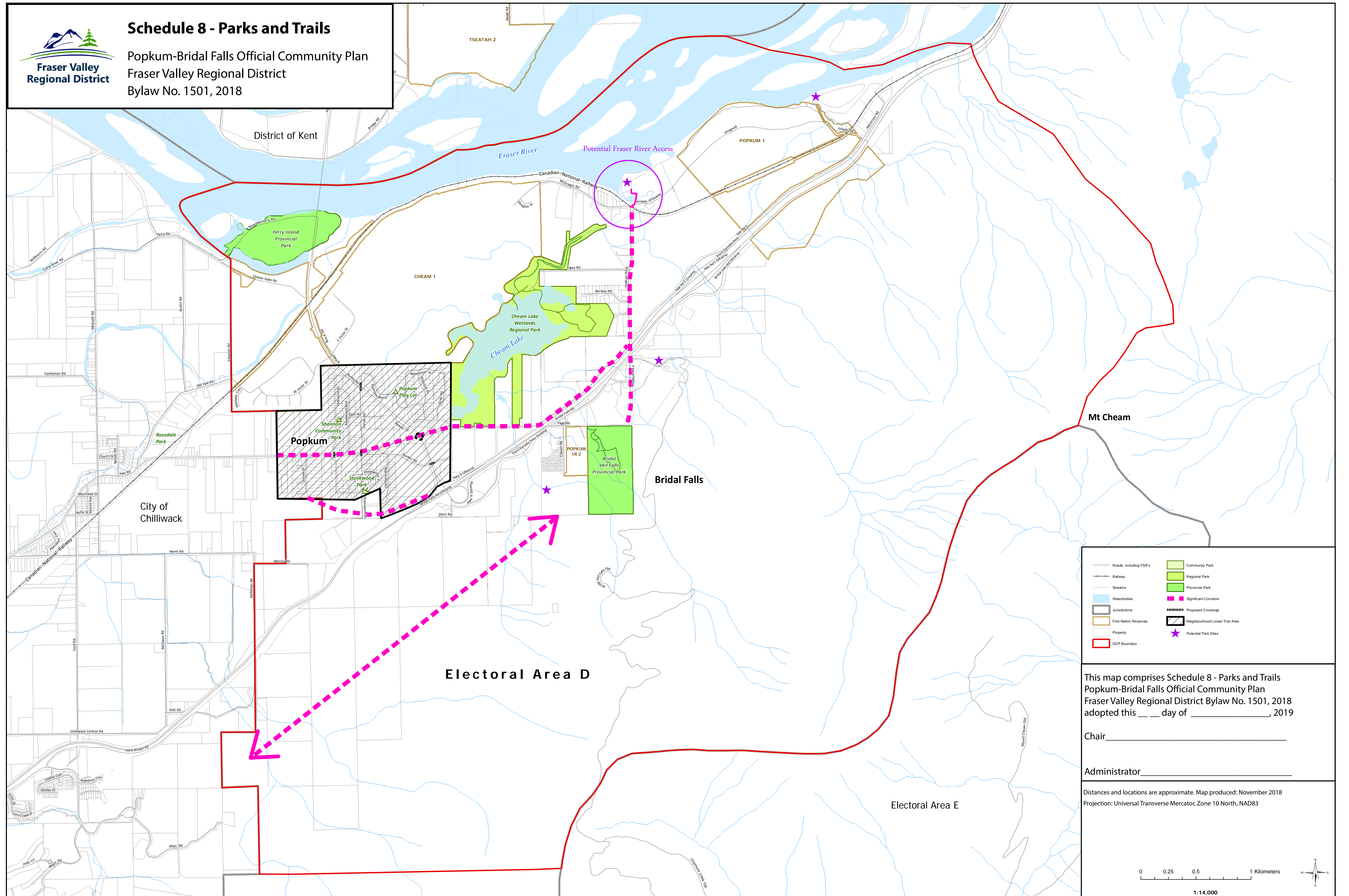
Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83





Schedule 8 - Parks and Trails

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



This map comprises Schedule 8 - Parks and Trails
Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District Bylaw No. 1501, 2018
adopted this ____ day of _____, 2019

Chair _____

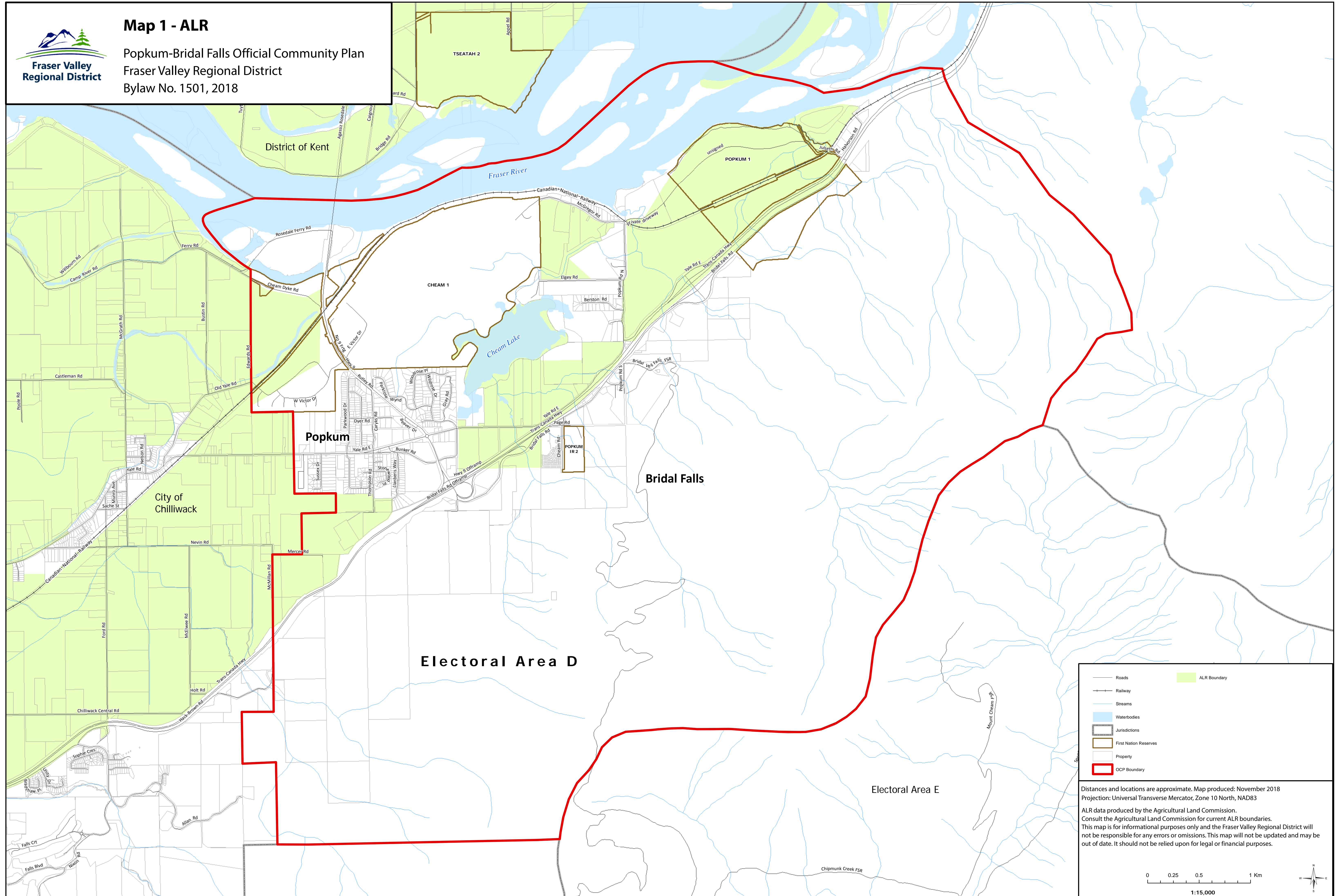
Administrator _____

Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83



Map 1 - ALR

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



Roads

Railway

Streams

Waterbodies

Jurisdictions

First Nation Reserves

Property

OCPC Boundary

ALR Boundary

Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83

ALR data produced by the Agricultural Land Commission.
Consult the Agricultural Land Commission for current ALR boundaries.
This map is for informational purposes only and the Fraser Valley Regional District will not be responsible for any errors or omissions. This map will not be updated and may be out of date. It should not be relied upon for legal or financial purposes.

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Map 2 - Geologic and Stream Hazards

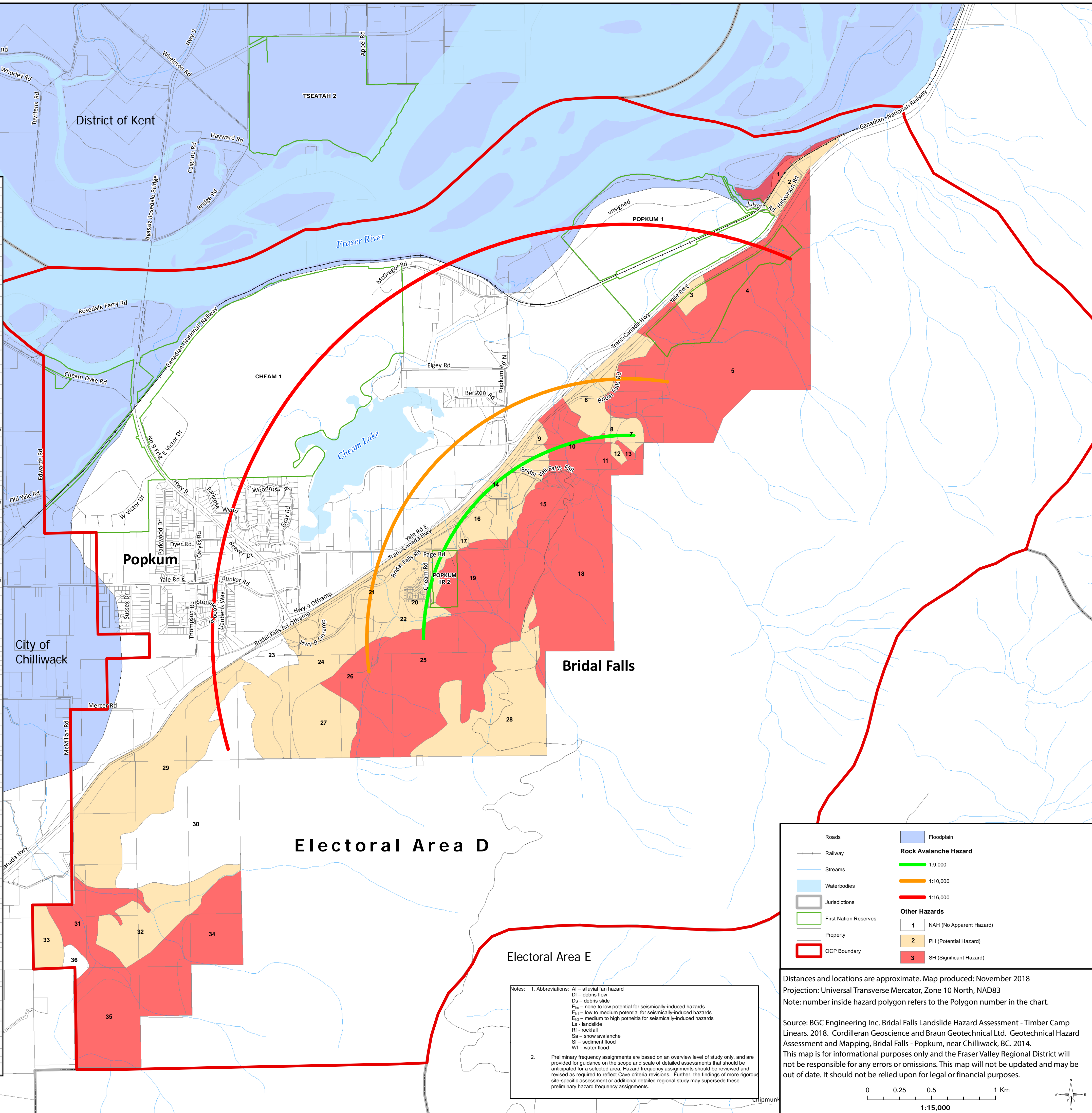
Popkum-Bridal Falls Official Community Plan

Fraser Valley Regional District

Bylaw No. 1501, 2018

Polygon Number	Hazard Level	Hazard Class	Assigned Frequency	Description	Comments
Fraser River Floodplain					
1	SH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Fraser River FCL Liquefaction assessment by GP
		Wf	>1500	Fraser River flooding	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Distal area of Basin NW1 and NW4 fans					
2	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	If no downstream obstructions, BL 681 applied Liquefaction assessment by GP
		Sf	>1500	Sediment flood at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Distal area of Basin NW2 fan					
3	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Site-specific study required for BL 681 applicability If no downstream obstructions, BL 681 applied Liquefaction assessment by GP
		Df	>150,000	Debris flow at margin of fan	
		Sf	>1500	Sediment flood at margin of fan	
4	SH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential. Potential for rockfall and debris slides initiated by earthquake shaking	
Proximal area of Basin NW1, NW2, NW3 and NW4 fans					
5	SH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Moderately steep to very steep slopes with high relief					
6	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Site-specific study required for BL 681 applicability If no downstream obstructions, BL 681 applied Liquefaction assessment by GP
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Distal area of Basin NW2 and Anderson Creek fans					
7	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
8	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Toe of slope on benchland					
9	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Small alluvial fan at toe of benchland					
10	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge. Chute across bench and debris flow may affect fan. Potential for earthquake-induced slope movements.	Seismic slope stability (current APEGBC Landslide Guidelines)
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential. Potential for permanent slope displacements during earthquake shaking	
Rock hummock at toe of Anderson Creek fan					
11	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Seismic slope stability (current APEGBC Landslide Guidelines)
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Proximal area of Anderson Creek fan					
12	SH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Debris cone on west side of benchland					
13	SH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Toe of slope on benchland					
14	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge. Debris chutes and rockfall may affect bench. Potential for earthquake-induced rockfall.	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential. Potential for rockfall and debris slides initiated by earthquake shaking	
Debris chute crosscutting benchland					
15	SH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge. A range of hillside hazards including slope benches affect the area.	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential. Potential for debris slides initiated by earthquake shaking	
Topographic low area between Bridal and Popkum fans					
16	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Site-specific study required for BL 681 applicability Site-specific study required for BL 681 applicability If no downstream obstructions, BL 681 applied Liquefaction assessment by GP
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Cheam rockslide deposit at toe of slope					
17	SH	Ls	1/1,000 to 1/10,000	Disposal transported by Bridal and Popkum fans and by hillside chutes and creeks, and locally exacerbated by debris cones.	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential. Potential for rockfall and debris slides initiated by earthquake shaking	
Distal area of Popkum and Bridal fans					
18	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge. Large, larger funnel debris flows and sediment flows may affect area.	Site-specific study required for BL 681 applicability Site-specific study required for BL 681 applicability Liquefaction assessment by GP
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	
Hummock of Cheam rockslide deposit protruding from Bridal fan					
19	PH	Ls	1/1,000 to 1/10,000	Landslide hazard from Cheam Peak and its southwest ridge	Seismic slope stability (current APEGBC Landslide Guidelines)
		Df	>1500	Debris flow at margin of fan	
		Eu	1/475 or 1/2,475	Liquefaction potential	

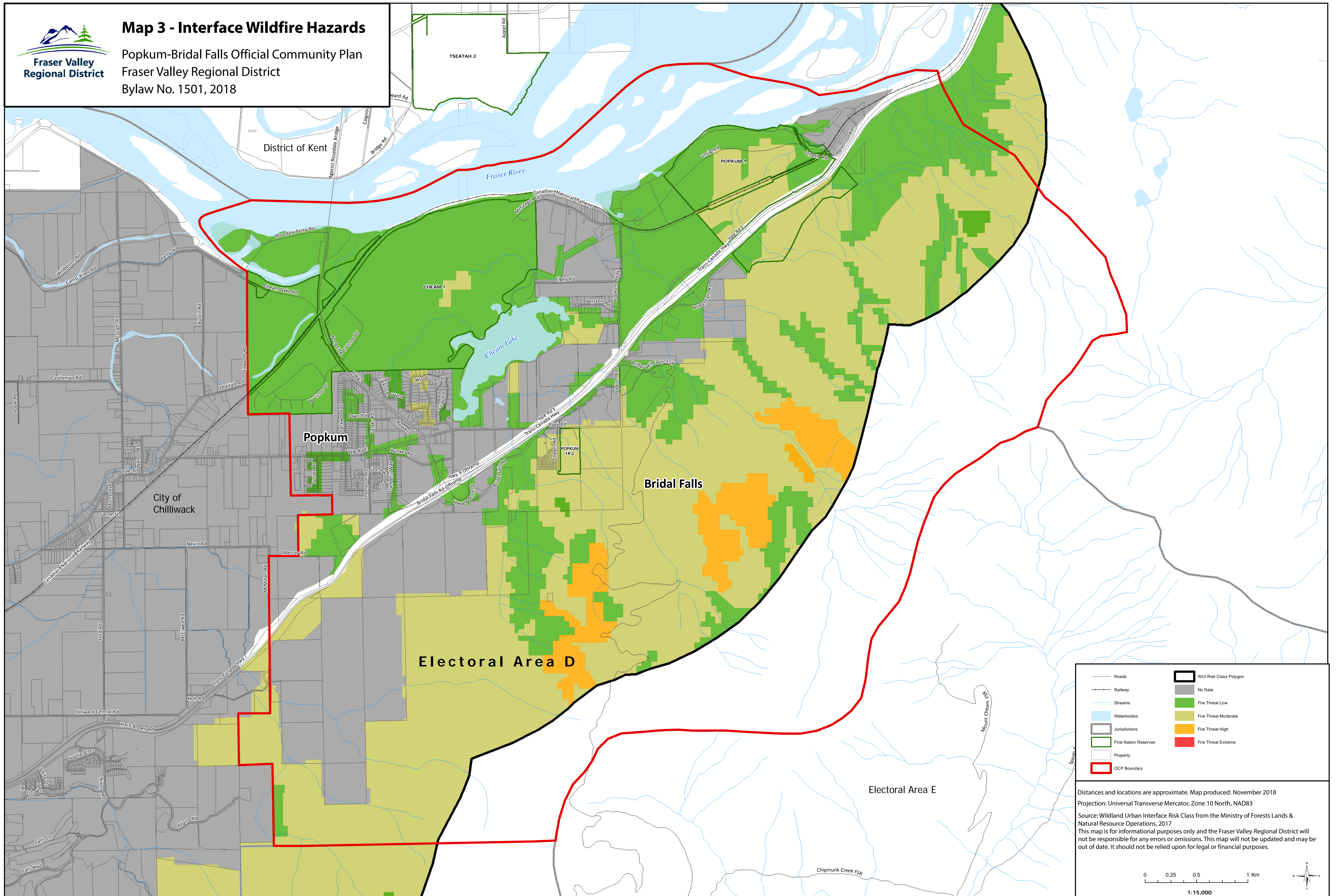
Polygon Number	Hazard Level	Hazard Class	Assigned Frequency	Description	Comments
Moderately steep to very steep slopes with moderate relief					
18	SH	Ls	1/1,000 to 1/10,000	Unconform landslide hazard from Timber Camp	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Proximal area of Bridal Creek fan					
19	SH	Ls	1/1,000 to 1/10,000	Unconform landslide hazard from Timber Camp Inneans and Bridal escarpment	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Very low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking					
Distal area of Bridal Creek fan					
20	PH	Ls	1/1,000 to 1/10,000	Unconform landslide hazard from Timber Camp Inneans and Bridal escarpment	Site-specific study required for BL 681 applicability
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Very low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking					
Topographic low between Bridal and interchange fans					
21	PH	Ls	1/1,000 to 1/10,000	Unconform landslide hazard from Timber Camp Inneans and Bridal escarpment	Site-specific study required for BL 681 applicability
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Very low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking					
Distal fan areas below Bridal escarpment					
22	PH	Ls	1/1,000 to 1/10,000	Unconform landslide hazard from Timber Camp Inneans and Bridal escarpment	Site-specific study required for BL 681 applicability
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Very low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking					
Raised remnant of Cheam rock avalanche deposit					
23	NAH	Ls	1/1,000 to 1/10,000	Unconform landslide hazard from Timber Camp Inneans and Bridal escarpment	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Distal area of interexchange Creek fan					
24	PH	Ls	1/1,000 to 1/10,000	Unconform landslide hazard from Timber Camp Inneans and Bridal escarpment	Site-specific study required for BL 681 applicability
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Bridal escarpment					
25	SH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Proximal area of interexchange Creek fan					
26	SH	Ls	>110,000	Unconform landslide hazard from Timber Camp Inneans and Bridal escarpment	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Distal area of interexchange Creek fan					
27	PH	Ls	>110,000	Unconform landslide hazard from Timber Camp Inneans and Bridal escarpment	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Mid slope area of Bridal Creek basin					
28	PH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Moderate to moderately steep slopes south of TCH					
29	PH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Gentle, undulating, rock controlled upland slope area of Dunville bench					
30	NAH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Gentle, undulating, rock controlled upland slope area of Dunville bench					
31	NAH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Ravine system between Dunville Creek fan and lower Dunville Creek fan					
31	SH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Distal area of Dunville and Nevins Creek fans					
32	PH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Site-specific study required for BL 681 applicability
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Mostly moderate to moderately steep slopes, Dunville Creek area					
33	PH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Mostly moderate to moderately steep slopes, Dunville Creek area					
34	SH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Upper Dunville and Nevins Creek fans					
35	SH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	
Gentle slopes on raised area of Dunville/Nevins benchland					
36	NAH	Ls	>110,000	Moderately steep to very steep slopes with low relief. Linear discontinuity at Hardy (1997) and ancient landslide by Gosses (2009)	Current APEGBC Landslide Guidelines
		Df	>1500	Debris flow	
		Eu	>1500	Low liquefaction potential. Potential for nodal, debris slides and permanent slope displacements initiated by earthquake shaking	
		At	>1500	Stream avulsion alluvial fan hazard	
		Sf	>1500	Sediment flow	





Map 3 - Interface Wildfire Hazards

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



— Roads	WUI Risk Class Polygon
—+— Railway	No Data
— Streams	Fire Threat Low
Waterbodies	Fire Threat Moderate
Jurisdictions	Fire Threat High
First Nation Reserves	Fire Threat Extreme
Property	
OCP Boundary	

Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83
Source: Wildland Urban Interface Risk Class from the Ministry of Forests Lands & Natural Resource Operations, 2017
This map is for informational purposes only and the Fraser Valley Regional District will not be responsible for any errors or omissions. This map will not be updated and may be out of date. It should not be relied upon for legal or financial purposes.

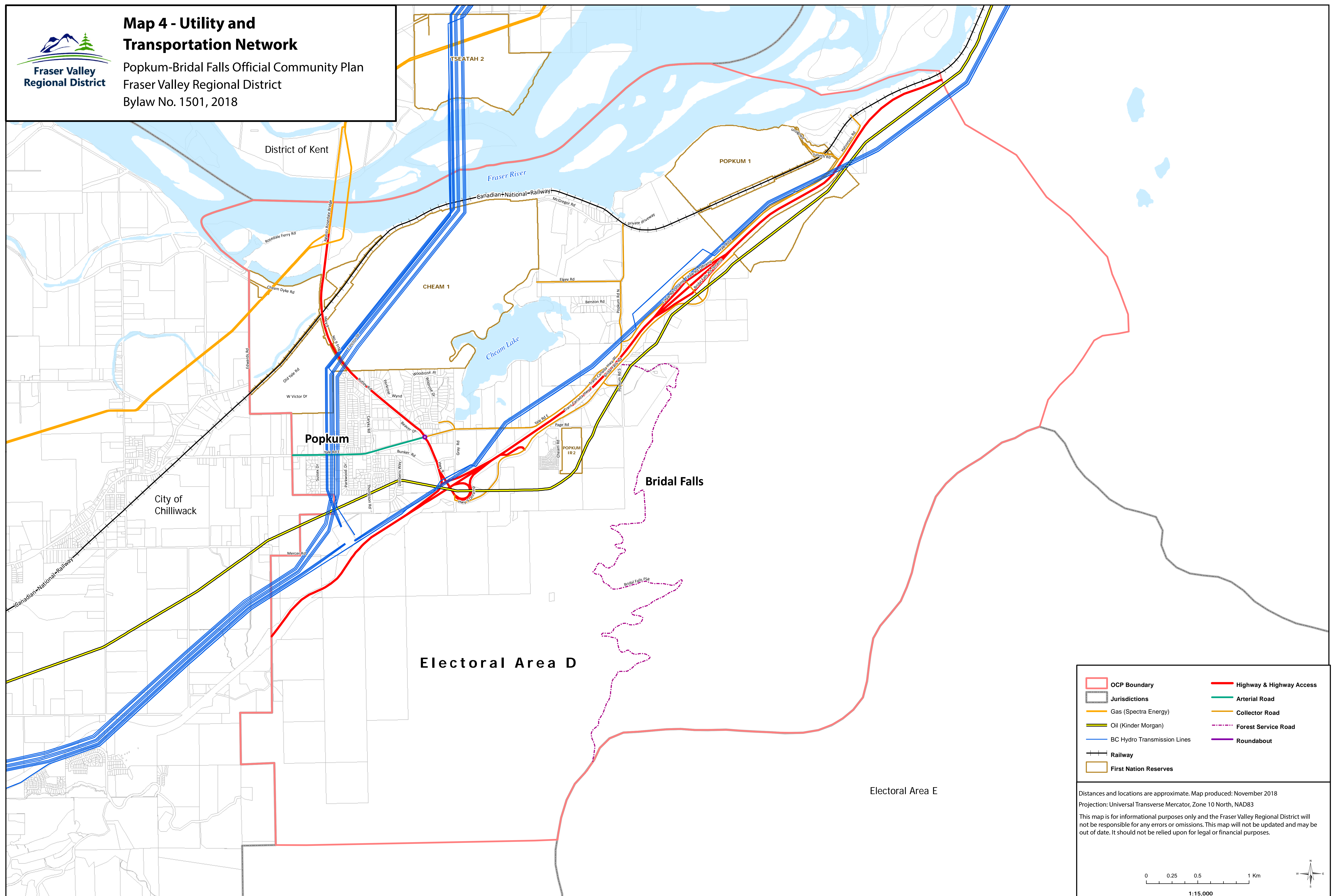
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W E N S



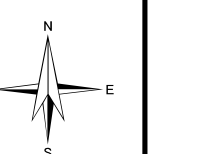
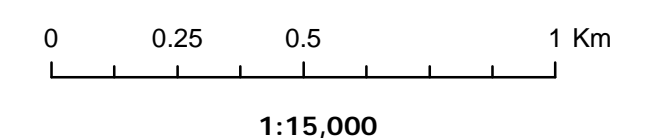
Map 4 - Utility and Transportation Network

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



OCP Boundary	Highway & Highway Access
Jurisdictions	Arterial Road
Gas (Spectra Energy)	Collector Road
Oil (Kinder Morgan)	Forest Service Road
BC Hydro Transmission Lines	Roundabout
Railway	
First Nation Reserves	

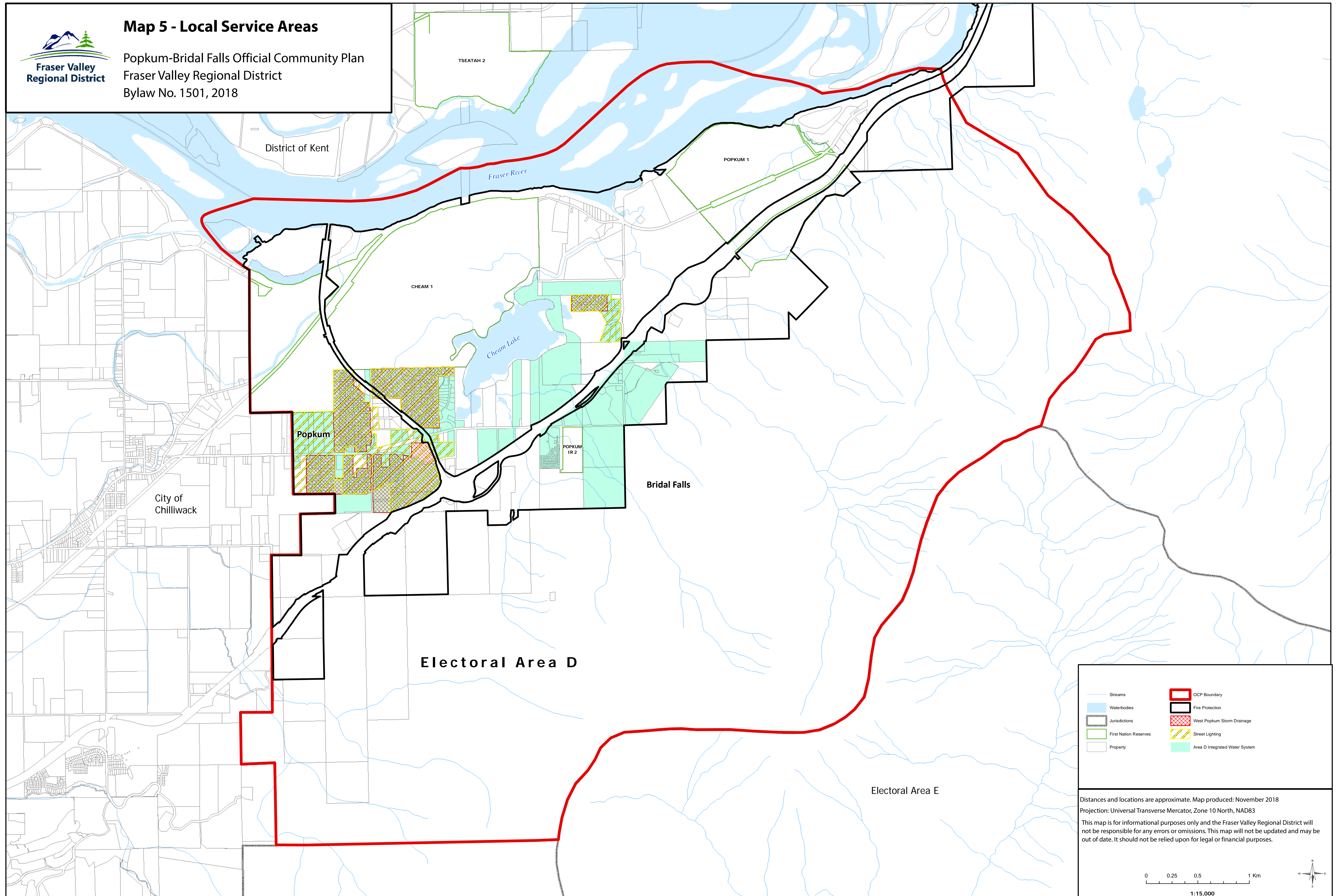
Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83
This map is for informational purposes only and the Fraser Valley Regional District will not be responsible for any errors or omissions. This map will not be updated and may be out of date. It should not be relied upon for legal or financial purposes.





Map 5 - Local Service Areas

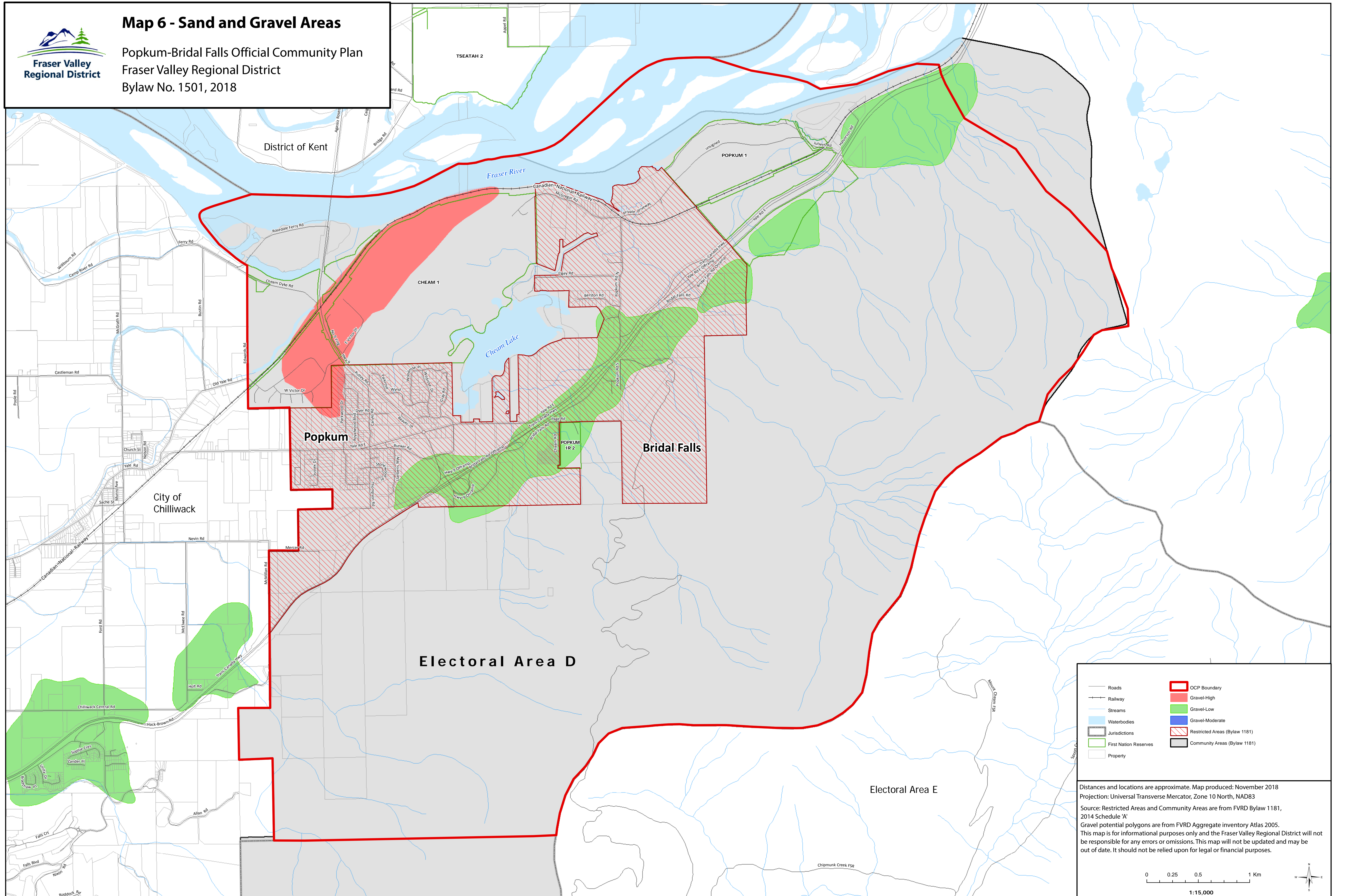
Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018





Map 6 - Sand and Gravel Areas

Popkum-Bridal Falls Official Community Plan
Fraser Valley Regional District
Bylaw No. 1501, 2018



Roads

Railway

Streams

Waterbodies

Jurisdictions

First Nation Reserves

Property

OCB Boundary

Gravel-High

Gravel-Low

Gravel-Moderate

Restricted Areas (Bylaw 1181)

Community Areas (Bylaw 1181)

Distances and locations are approximate. Map produced: November 2018
Projection: Universal Transverse Mercator, Zone 10 North, NAD83
Source: Restricted Areas and Community Areas are from FVRD Bylaw 1181, 2014 Schedule 'A'
Gravel potential polygons are from FVRD Aggregate inventory Atlas 2005.
This map is for informational purposes only and the Fraser Valley Regional District will not be responsible for any errors or omissions. This map will not be updated and may be out of date. It should not be relied upon for legal or financial purposes.

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1:15,000

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369

To: CAO for the Electoral Area Services Committee

Date: 2018-12-11

From: David Bennett, Planner II

File No: 3360-23-2018-01

Subject: Rezoning application for 10304 Agassiz-Rosedale Highway, Electoral Area "D" to facilitate a proposed four (4) lot suburban residential subdivision.

RECOMMENDATION

THAT the Fraser Valley Regional District Board consider giving first reading to the bylaw cited as *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018* for the purpose of rezoning 10304 Agassiz-Rosedale Hwy (Highway 9) to facilitate a four (4) lot suburban residential subdivision;

THAT the *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018* be forwarded to Public Hearing;

THAT the Fraser Valley Regional District Board delegate the holding of the Public Hearing with respect to the proposed *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018* to Director Dickey or, in his absence, the Alternate Director for Area D;

THAT Director Dickey or his alternate preside over and chair the Public Hearing with respect to proposed *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018*;

AND THAT the Chair of the Public Hearing be authorized to establish procedural rules for the conduct of the Public Hearing with respect to proposed *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018* in accordance with the Local Government Act;

AND FURTHER THAT in the absence of both Director Dickey and his alternate at the time of the Public Hearing with respect to proposed *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018*, the Fraser Valley Regional District Board Chair is delegated the authority to designate who shall preside over and chair the Public Hearing regarding this matter;

AND FINALLY THAT the Fraser Valley Regional District Board authorize its signatories to execute all documents relating to *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018*.

STRATEGIC AREA(S) OF FOCUS
Foster a Strong & Diverse Economy

Support Healthy & Sustainable Community
Provide Responsive & Effective Public Services

BACKGROUND

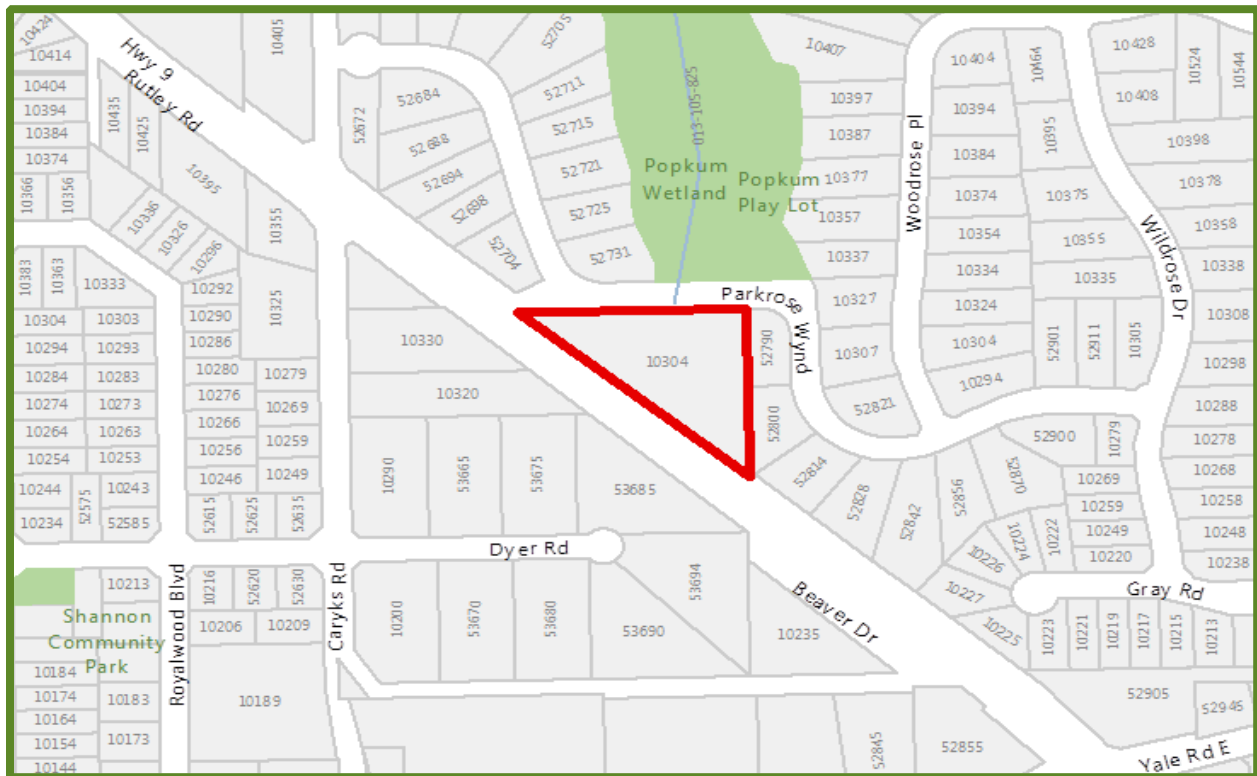
PROPERTY DETAILS			
Electoral Area	D		
Address	10304 Agassiz-Rosedale Hwy.		
PID	013-105-876		
Folio	733.06454.000		
Lot Size	2.528 acres		
Owner	Goosen Construction Inc.	Developer	Jeremy & Amanda Goosen
Current Zoning	Country Residential (CR)	Proposed Zoning	Suburban Residential 1 (SBR-1)
Current OCP	Suburban Residential (SR)	Proposed OCP	No change
Current Use	SFD	Proposed Use	Subdivision (x4 lots)
Development Permit Areas	n/a		
Agricultural Land Reserve	No		

ADJACENT ZONING & LAND USES		
North	^	Suburban Residential (SBR-2), Residential / Popkum Wetland
East	>	Suburban Residential (SBR-2), Residential
West	<	Country Residential (CR), Residential
South	v	Country Residential (CR), Residential

APPLICATION DETAILS

Goosen Construction applied to rezone and subdivide 10304 Agassiz-Rosedale Hwy (Highway 9) into four 1/2 acre suburban residential lots. Parcel sizes are 0.225ha (0.55acres) and require connection to the FVRD water system. On-site septic sewage disposal is permitted at this parcel size. The existing house on the lands will be retained. All driveways and future access to the proposed lots will be from Parkrose Wynd and not from Highway 9.

NEIGHBOURHOOD MAP



PROPERTY MAP



DRAFT SUBDIVISION LAYOUT



DISCUSSION

In order to demonstrate compliance with Official Community Plan policies, prior to Public Hearing, the developer must complete the following technical reporting:

On-site Septic Report **Required**

The developer submitted a Soil Permeability report that concludes that the soil conditions on the lands will allow for the construction of domestic septic fields. This report is sufficient to proceed to first reading. Prior to public hearing, the report must be updated to demonstrate that the proposed development is suitable for long term on-site sewage disposal and that no danger exists for ground water pollution which could lead to environmental problems. The report must show locations for primary and reserve field locations on each proposed lot. Co-ordination with the arborist regarding tree retention areas is required.

Tree Retention Report **Required**

The application states that existing trees will be retained unless they will interfere with home construction or are deemed unsafe. To provide the community with a better understanding of the

proposed tree removal and retention, a report prepared by a Certified Arborist, trained in assessing the health of trees in an urban environment is required prior to public hearing and must include:

1. The location, description and number of trees to be removed.
2. The location, description and number of trees to be retained.
3. A replacement or remedial action plan for the trees being removed.
4. A plan to protect trees during the construction of the subdivision and housing development.
5. This plan shall confirm that it is necessary to remove or alter the trees or any of them in order to accommodate; the subdivision of the lands, primary and reserve septic fields, lot grading, the construction of single family dwellings and accessory buildings on the lands, subdivision servicing infrastructure, or for reasons of safety, disease or the general health of the trees.

Highway Noise Report

Required

Traffic noise from Highway 9 impacts the Popkum neighbourhood. Some property owners have erected private sound walls to mitigate the noise from the highway in this area. The Ministry of Transportation and Infrastructure has also constructed a noise fence near the Highway 9/Yale Road round-about. The potential impacts from highway noise on this proposed development requires evaluation. Prior to consideration of adoption, a report prepared by a Qualified Professional, an Acoustical Engineer, is required. The report must:

1. Determine acceptable sound levels within the development site and within 250m of the site to the north and east of the site.
2. Detail the sound levels pre-development and post-development (accounting for tree removal and site grading).
3. Determine strategies and recommendations to mitigate sound levels to acceptable levels. This may include safety setbacks, berms, landscaping and other on-site and construction methods.
4. The report must take into account the Federal Canada Mortgage and Housing Corporation's guidelines, "Road and Rail Noise: Effects on Housing".

Form and Character Drawings Required

The FVRD does not regulate the form and character of single family homes in Popkum. The adjacent Rose Garden Estates subdivision was developed with a design control covenant in favour of the developer to control the form and character of homes. Prior to public hearing, the developer must prepare conceptual design drawings to show the form and character of the homes that are proposed. Registration of a design control covenant in favour of the developer is recommended to ensure the quality of new construction matches the existing neighbourhood.

Park Dedication Offer Required

In accordance with the Local Government Act, provision of Park is required for this proposal. Prior to public hearing, a written offer from the applicant is required to address public Park requirements. The lands are located adjacent to the Rose Garden Estates play park. It may be appropriate to consider opportunities to provide park improvements at this location, or to simply obtain cash-in-lieu of park dedication to be used towards future park acquisition in the area. A park offer will be need FVRD Board approval prior to consideration of bylaw adoption.

Service Area Petitions Required

Prior to consideration of adoption, the lands must be petitioned into the following service areas:

- Linear Park
- Stormwater
- Street Lighting
- Community Water

Covenant Discharge Required

There is an existing covenant registered on the title of the lands dating back to a 1992 building permit application for the placement of a companionate care mobile home. This covenant is no longer required as the mobile home was removed from the property several years ago. Discharge of this covenant may occur at any time, but it is recommended to be removed prior to consideration of adoption.

Highway 9 Access Restriction Required

Prior to consideration of adoption, it is recommended that a covenant be registered on the lands prohibiting access from Highway 9. All access to the proposed new lots can be achieved from Parkrose Wynd.

Comprehensive Covenant Required

A covenant detailing on-site stormwater management requirements, building elevations, as well as construction security and tree retention, is required. This agreement may also details matters relating to sewage disposal and mitigation of highway noise. This agreement must be registered prior to consideration of zoning adoption.

Lot Grading Plan Required

The grade of the property contains numerous slopes. Prior to public hearing, a comprehensive grading plan is required to ensure there is clear information on the grades and any retaining structures to the abutting properties and roads, and how the lot grading will impact tree removal and retention on the property.

COST

Rezoning application fee - \$5,000.00 **Paid**

Connections to the existing FVRD community water system are the responsibility of the developer. The proposed subdivision will be required to petition into the water system service area, street lighting service area, linear park service area and stormwater service area. These proposed additional parcels and new construction will reduce the existing service area participant's costs.

CONCLUSION

In order to determine whether or not to recommend proceeding to First Reading; FVRD staff's consideration included the following:

- Official Community Plan supports the development of Suburban Residential Lots
- The proposal is limited in scope and scale to a four-lot infill subdivision.
- Each proposed lot is larger than the 2000m² minimum parcel size requirement of the SBR-1 zone (all four proposed lots are greater than 0.225ha (0.55acres).
- Preliminary septic reporting indicates appropriate conditions for septic disposal on site.
- This proposal may be considered a minor Infill subdivision.

COMMENTS BY:

Graham Daneluz, Deputy Director of Planning & Development	Reviewed and supported
Margaret Thornton, Director of Planning & Development	Reviewed and supported
Mike Veenbaas, Director of Financial Services	No further financial comment
Paul Gipps, Chief Administrative Officer	Reviewed and supported

FRASER VALLEY REGIONAL DISTRICT

Bylaw No. 1502, 2018

A Bylaw to Amend the Zoning for a portion of Electoral Area D

WHEREAS the Fraser Valley Regional District Board of Directors ("the Board") has deemed it advisable to amend *Zoning Bylaw for Electoral Area "D", 1976 of the Regional District of Fraser-Cheam for a portion of Electoral Area D*:

THEREFORE the Board enacts as follows:

1) **CITATION**

This bylaw may be cited as *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018*.

2) **MAP AMENDMENT**

- a) That the Zoning Map of Electoral Area "D" of the Regional District of Fraser Cheam which accompanies and is part of *Zoning Bylaw for Electoral Area "D", 1976 of the Regional District of Fraser-Cheam*, be amended by rezoning the lands described as:

PART PARCEL "A" (REFERENCE PLAN 7458) OF THE NORTH WEST QUARTER SECTION 6
TOWNSHIP 3 RANGE 28 WEST OF THE SIXTH MERIDIAN LYING NORTH AND EAST OF THE
HIGHWAY ON PLAN 17235 NEW WESTMINSTER DISTRICT
(PID 013-105-876)

and as outlined in heavy black outline and cross-hatched on Zoning Amendment Map Schedule 1502-A, from the Country Residential (CR) zone to the Suburban Residential 1 (SBR-1) zone, as shown on Map Schedule 1502-A.

- b) That the map appended hereto as Zoning Amendment Map Schedule 1502-A showing such amendments is an integral part of this bylaw.

3) **SEVERABILITY**

If a portion of this bylaw is found invalid by a court, it will be severed and the remainder of the bylaw will remain in effect.

4) **READINGS AND ADOPTION**

READ A FIRST TIME THIS day of

PUBLIC HEARING WAS HELD THIS day of

READ A SECOND TIME THIS day of

READ A THIRD TIME THIS day of

APPROVED BY THE MINISTRY
OF TRANSPORTATION AND
INFRASTRUCTURE THIS day of

ADOPTED THIS day of

Chair/Vice Chair

Corporate Officer/Deputy

5) CERTIFICATION

I hereby certify the foregoing to be a true and correct copy of *Fraser Valley Regional District Electoral Area D Zoning Amendment Bylaw No. 1502, 2018* as read a third time/adopted by the Board of Directors of the Fraser Valley Regional District on the day of .

Dated at Chilliwack, B.C. this day of

Corporate Officer/ Deputy



45950 Cheam Avenue
Chilliwack, BC V2P 1N6
604-702-5000 | 1-800-528-0061

Receipt

Date July 19, 2018

Received from GOOSEN CONSTRUCTION INC.

Description of Payment and GL Code _____

ZON APPLICATION

10304 AGASS-ROSEDALE HWY

For Office Use Only Do not write in the space below

Fraser Valley Regional District

Receipt: 6485/4 Jul 19, 2018
Dated: Jul 19, 2018 11:46:13 AM
Station: EA SERVICE/CASH2

1 PLANNING REZONING APPLICATIO 5,000.00

Total 5,000.00

CHEQUE GOOSEN CONSTRUCTION -5,000.00

GST #89221 4750 RT0001

White - Cashier | Yellow - Department | Pink - Customer

SCHEDULE A-2

Zoning Amendment Application

I / We hereby apply to:

☐

Amend the text of Zoning Bylaw No. _____

Purpose (in brief): _____

☒

Change the Zoning of the 'subject property' in Zoning Bylaw No. 75

From: CR (current zone)

To: SBR1 (proposed zone)

An Application Fee in the amount of \$ 5,000 as stipulated in FVRD Application Fees Bylaw No. 1231, 2013 must be paid upon submission of this application.

Civic
Address

10304 AGASSIZ - ROSEDALE HWY PID 013-105-876

Legal
Description

Lot _____ Block _____ Section 6 Township 3 Range 28 Plan NWPT7235

The property described above is the subject of this application and is referred to herein as the 'subject property.' This application is made with my full knowledge and consent. I declare that the information submitted in support of the application is true and correct in all respects.

Owner's
Declaration

Name of Owner (print)	Signature of Owner	Date
JEREMY GROSSEN		07/11/18
Name of Owner (print)	Signature of Owner	Date
Amanda Grossen		06.16.18

Owner's
Contact
Information

Address		City
PO BOX 126		ROSEDALE
Email		Vox 1X0
Phone	Cell	Fax

Office Use Only	Date	File No.
	JULY 19, 2018	3360-23 2018-01
	Received By	Folio No.
	Receipt No. 6485/4	Fees Paid: \$ 5,000.00

Agent

I hereby give permission for _____ to act as my/our agent in all matters relating to this application.

Only complete this section if the applicant is NOT the owner.

Signature of Owner	Date
Signature of Owner	Date

Agent's contact information and declaration

Name of Agent		Company	
Address		City	
Email		Postal Code	
Phone	Cell	Fax	

I declare that the information submitted in support of this application is true and correct in all respects.

Signature of Agent	Date
--------------------	------

Development Details

Property Size 10,230 m² (m² or ha)

Existing Use COUNTRY RESIDENTIAL

Proposed Development / Text Amendment

PROPOSING TO SUBDIVIDE EXISTING CR ZONED LOT INTO 4 LOTS ZONED SBR1

Justification and Support

SURROUNDING LAND HAS ALREADY BEEN SUBDIVIDED INTO SBR1 OR SBR2 LOTS.

(use separate sheet if necessary)

Anticipated Start Date: LATE 2019

Services

Services	Currently Existing		Readily Available *	
	Yes	No	Yes	No
Road Access	✓			
Water Supply			✓	
Sewage Disposal			✓	
Hydro			✓	
Telephone			✓	
School Bus Service	✓			

* 'Readily Available' means existing services can be easily extended to the subject property.

Proposed

Water Supply

REGIONAL DISTRICT SUPPLIED

Proposed

Sewage Disposal

ENGINEERED SEPTIC FIELD

Provincial Requirements

(This is not an exhaustive list; other provincial regulations will apply)

Riparian Areas Regulation

Please indicate whether the development proposal involves residential, commercial, or including vegetation removal or alteration; soil disturbance; construction of buildings and structures; creation of impervious or semi-pervious surfaces; trails, roads, docks, wharves, bridges and, infrastructure and works of any kind – within:

yes
☐

no
☒

30 metres of the high water mark of any water body

yes
☐

no
☒

a ravine or within 30 metres of the top of a ravine bank

"Water body" includes; 1) a watercourse, whether it usually contains water or not; 2) a pond, lake, river, creek, or brook; 3) a ditch, spring, or wetland that is connected by surface flow to 1 or 2 above.

Under the *Riparian Areas Regulation* and the *Fish Protection Act*, a riparian area assessment report may be required before this application can be approved.

Contaminated Sites Profile

Pursuant to the *Environmental Management Act*, an applicant is required to submit a completed "Site Profile" for properties that are or were used for purposes indicated Schedule 2 of the *Contaminated Sites Regulations*. Please indicate if:

yes
☐

no
☒

the property has been used for commercial or industrial purposes.

If you responded 'yes,' you may be required to submit a Site Profile. Please contact the FVRD Planning Department or the Ministry of Environment for further information.

Archaeological Resources

Are there archaeological sites or resources on the subject property?

yes
☐

no
☒

I don't know
☐

If you responded 'yes' or 'I don't know' you may be advised to contact the Archaeology Branch of the Ministry of Tourism, Sport and the Arts for further information.

Required Information

When providing Application Forms to the applicant, Regional District staff shall indicate which of the following attachments are required for this application. **Additional information may also be required at a later date.**

	Required	Received	Details
Location Map			Showing the parcel (s) to which this application pertains and uses on adjacent parcels
Site Plan At a scale of: 1: _____			Reduced sets of metric plans
			North arrow and scale
			Dimensions of property lines, rights-of-ways, easements
			Location and dimensions of existing buildings & setbacks to lot lines, rights-of-ways, easements
			Location and dimensions of proposed buildings & setbacks to lot lines, rights-of-ways, easements
			Location of all water features, including streams, wetlands, ponds, ditches, lakes on or adjacent to the property
			Location of all existing & proposed water lines, wells, septic fields, sanitary sewer & storm drain, including sizes
			Location, numbering & dimensions of all vehicle and bicycle parking, disabled persons' parking, vehicle stops & loading
			Natural & finished grades of site, at buildings & retaining walls
			Location of existing & proposed access, pathways
			Above ground services, equipment and exterior lighting details
			Location & dimensions of free-standing signs
			Storm water management infrastructure and impermeable surfaces
			Other:
Floor Plans			Uses of spaces & building dimensions
			Other:
Landscape Plan Same scale as site plan			Location, quantity, size & species of existing & proposed plants, trees & turf
			Contour information (_____ metre contour intervals)
			Major topographical features (water course, rocks, etc.)
			All screening, paving, retaining walls & other details
			Traffic circulation (pedestrian, automobile, etc.)
			Other:
Reports			Geotechnical Report
			Environmental Assessment
			Archaeological Assessment
			Other:

The personal information on this form is being collected in accordance with Section 27 of the *Freedom of Information and Protection of Privacy Act, RSBC 1996 Ch. 165* and the *Local Government Act, RSBC 2015 Ch. 1*. It will only be collected, used and disclosed for the purpose of administering matters with respect to planning, land use management and related services delivered, or proposed to be delivered, by the FVRD. Questions about the use of personal information and the protection of privacy may be directed to the FVRD Privacy Officer at 45950 Cheam Avenue, Chilliwack, BC V2P 1N6, Tel: 1-800-528-0061 FOI@fvr.ca.

STRATEGIC FOCUS & PRIORITIES CHECKLIST

Applicant: **DAVID GOOSEN** Project:

Date:

This checklist is intended to assist in the Regional Board in considering your application in relation to the Board's Strategic objectives. Please note that there are many factors that are considered when considering applications and this checklist is for information purposes only.

Foster a Strong & Diverse Economy		
	Y/N/NA	Supporting Evidence (attach info if needed)
1.1 Does the development add lasting jobs to the local community?	NA	
1.2 Does the development contribute to diversifying the local economy?	NA	
1.3 Does the development strengthen tourism or outdoor recreation?	NA	
1.4 Does the development enable home-based work?	Y	
1.5 Is the development supported by high-speed internet and cellular service?	Y	SURROUNDING AREA IS ALREADY DEVELOPED

Provide Responsive & Effective Public Services		
	Y/N/NA	Supporting Evidence (attach info if needed)
2.1 Does the development utilize green alternatives for site services?	N	
2.2 Does lifecycle cost analysis demonstrate the long-term efficiency of development infrastructure?	NA	
2.3 Does the development contribute to source water protection?	NA	
2.4 Do development services address the needs of local residents?	NA	
2.5 Does the design of the site incorporate Crime Prevention Through Environmental Design "CPTED" principles?	NA	

You can view the Strategic Plan at www.fvrd.ca

Support Environmental Stewardship

	Y/N/NA	Supporting Evidence (attach info if needed)
3.1 Does the development support transit, walking, and/or cycling?	Y	SURROUNDING AREA IS ALREADY DEVELOPED.
3.2 Are buildings, facilities or landscaping designed to reduce energy consumption, emissions or water use?	Y	BUILDINGS WILL BE CONSTRUCTED TO LATEST CODES.
3.3 Does the Development contain facilities for recycling and organic waste facilities or programs?	NA	
3.4 Are environmental features and functions (i.e. trees, streams, habitat) of the site maintained?	Y	THE TREES WILL BE KEPT UNLESS THEY AFFECT FUTURE HOME LOC'N OR DEEMED UNSAFE.
3.5 Is the development seeking green building certification (i.e. Built Green, Energy Star, Passive House, LEED,)?	N	

Support Healthy & Sustainable Communities

	Y/N/NA	Supporting Evidence (attach info if needed)
4.1 Does the development address an identified community or demographic need?	N	
4.2 Does the development include "age-friendly" or accessibility components that support 'aging-in-place" or universal access?	Y	IF SITE GRADING PERMITS, STAIRS & STEPS WILL BE AVOIDED. TO MAX FLOOR LIVING SPACES
4.3 Was the local community engaged in the conceptual design of the development?	N	
4.4 Does the development increase the range of housing types or sizes available in the community?	N	WILL BE TRYING TO MATCH EXISTING / SURROUNDING HOUSES. EXISTING
4.5 Is the development affordable to residents of the local community?	Y	FUTURE HOUSES WILL MATCH SURROUNDING HOUSES IN AREA IN BOTH COST & STYLE.
4.6 Does the development address a gap in achieving a compact, complete and sustainable community?	Y	PROPOSED DEVELOPMENT IS ONE OF THE LAST UNDEVELOPED PIECE OF LAND IN THIS AREA. DEVELOPING THE PROPOSED DEVELOPMENT WOULD COMPLETE THE DEVELOPMENT OF THE OVERALL AREA.

GOOD NEIGHBOUR PRACTICES

MANAGING CONSTRUCTION AND DEVELOPMENT IMPACTS IN RESIDENTIAL NEIGHBOURHOODS

Development and renewal of neighbourhoods can improve the vitality, value and appearance of FVRD communities. However, development and construction can create negative short term impacts for neighbours, such as noise, dust, odours, and air quality impacts. Developers and builders can reduce their impacts by using good neighbour practices and by taking action before problems arise.

ISSUE

WHAT CAN YOU DO?

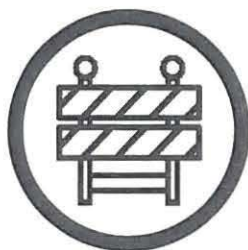
COMMUNICATION



Talk with your neighbours on an ongoing basis. Information and personal contact generally creates a more supportive and understanding perspective.

- Conduct door visits and provide flyers/notices.
- Introduce your project.
- Provide your contact information.
- Share your timelines.

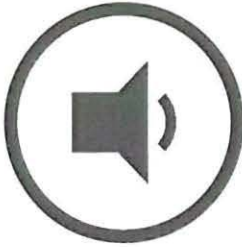
SITE MANAGEMENT



Proactive site management can address the majority of neighbour impacts.

- Stay on your property - don't encroach your work site or cause destruction to neighbouring parcels.
- Manage your storm water onsite – don't cause drainage issues for your neighbours or damage the environment.
- Keep a clean worksite – collect & manage waste regularly.
- Provide and maintain temporary toilets.
- Secure your site (eg. temporary fence) for safety and security reasons. Thefts and trespass can be a problem.

OFF-SITE IMPACTS



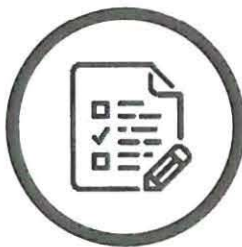
- Avoid noise and disturbances in evening hours and weekends. Quiet time is 10 p.m. - 6 a.m.
- Do not burn in residential areas. Use hauling and/or chipping.

ROAD & SIDEWALK USE



- Construction or alteration works may require approval.
Roads - contact BC Ministry of Transportation and Infrastructure:
ph. 604-795-8211
Sidewalks (Popkum) - contact FVRD Regional Parks:
ph. 604-702-5000
- Don't block sidewalks, roads and driveways.
- Manage onsite parking and make temporary arrangements if necessary.
- Keep sidewalks and roads free of construction sediment and dirt.
- Regularly wash off vehicles before leaving site.
- Keep construction waste bins, materials, etc. from public roadways.

PERMITS & APPROVALS



- Know the rules and FVRD requirements before you start your project, and check your property title for restrictions (eg. covenants, easements, geo-technical restrictions, etc.).
- Obtain your FVRD approvals BEFORE starting construction or development.
- Not sure which permits and approvals are needed? Contact the FVRD to find out.

SIGNATURE AND ACKNOWLEDGEMENT

I will ensure development and construction at 10304 AGASSIE-ROSEDALE NW follows the FVRD's Good Neighbour Practices by: address

- ☒ Providing the Good Neighbour Practices to employees and sub-trades working on the site
- ☒ Posting the Good Neighbour Practices in a visible location
- ☒ Discussing the Good Neighbour Practices at job site meetings
- ☐ Other: _____

Name (please print): JEREMY GOOSEN

Signature: _____

July 03, 2018

Goosen Construction

46165 4th Avenue
Chilliwack, BC V2P 1N3

Re: Soil permeability
Site Address: 10304 Highway 9, Rosdale, BC.

As requested Western Pacific Engineering Group Ltd. (WPEG) has conducted a subsoil investigation to determine on-site soil stratigraphy & permeability required for the design of septic fields for the proposed residential subdivision.

- Site and project Description:

The project is bounded by Highway 9 to the South-West , by Parkrose Wynd to the North and by residential properties to the East. There is an existing dwelling in proposed Lot 4 witch will remain in place. The vegetation on the lot consists of trees, bushes and few stumps. The topography of the site is slightly sloping from South-West to North-East.

According to the information provided by the client, the proposed development consists of 4-lot subdivision.

- Subsoil investigation:

The subsoil investigation was carried out on June 22, 2018. Four test holes were dug to a maximum depth of 1.2 m below the existing ground surface. Location and description of the Pit Holes are shown in the attached site plan. Percolation test was carried out at 0.2m - 0.5m from surface and it varies from 4.50 to 17.67 minutes per inch. No ground water was found at the time of our field work.

- Discussion and Recommendations:

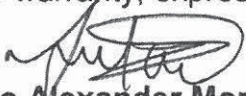
According to the field results, it is WPEG's professional opinion that native soil has fairly good permeability characteristics and will allow the construction of domestic septic fields.



- Limitations and closure

The recommendations provided in this report are based on our field observations and the analysis of the results of the subsoil investigation; however due the variable nature of the subsoil, unexpected conditions may be found; Western Pacific Engineering Group Limited must be informed by the client in this event to conduct the necessary adjustments.

This assessment has been prepared in accordance with general accepted engineering practice for the exclusive use of the client for the purposes stated. No other warranty, expressed or implied is made.



Fabio Alexander Morales, P.Eng.
Project Engineer



PERCOLATION TEST RESULTS

PERCOLATION # 1 @ 0.2m BELOW GRADE			
INCHES	TIME MIN:SEC	DIFFERENCE MIN:SEC	MIN/INCH
0	00:00		
1	05:20	05:20	5.33
2	12:40	07:20	7.33
3	21:50	09:10	9.17
4	34:20	12:30	12.50

PERCOLATION # 5 @ 0.2m BELOW GRADE			
INCHES	TIME MIN:SEC	DIFFERENCE MIN:SEC	MIN/INCH
0	00:00		
1	02:10	02:10	2.17
2	07:25	05:15	5.25
3	11:10	03:45	3.75
4	18:40	07:30	7.50

DEPTH (m)	PIT HOLE 1	
	MATERIAL DESCRIPTION	
0	TOP SOIL, DARK BROWN, ROOTS	
0.25	SILT LOAM, BROWN, SMALL ROCKS, MOIST	
0.5	LOAM, DARK BROWN, BIG ROCKS AT BOTTOM, MOIST	
1.2		

DEPTH (m)	PIT HOLE 3	
	MATERIAL DESCRIPTION	
0	TOP SOIL, BROWN, ROOTS	
0.15	BROWN SILT LOAM, MOIST	
0.6	LOAM, DARK BROWN, SOME ROCKS, MOTTLING, SOME GLEY	
1.1		

PERCOLATION # 2 @ 0.2m BELOW GRADE			
INCHES	TIME MIN:SEC	DIFFERENCE MIN:SEC	MIN/INCH
0	08:33		
1	10:10	01:37	1.62
2	13:05	02:55	2.92
3	14:50	01:45	1.75
4	19:20	04:30	4.50

PERCOLATION # 6 @ 0.5m BELOW GRADE			
INCHES	TIME MIN:SEC	DIFFERENCE MIN:SEC	MIN/INCH
0	00:00		
1	04:05	04:05	4.08
2	08:35	04:30	4.50
3	15:10	06:35	6.58
4	22:25	07:15	7.25

PERCOLATION # 3 @ 0.2m BELOW GRADE			
INCHES	TIME MIN:SEC	DIFFERENCE MIN:SEC	MIN/INCH
0	00:00		
1	03:40	03:40	3.67
2	09:10	05:30	5.50
3	15:20	06:10	6.17
4	24:15	08:55	8.92

PERCOLATION # 7 @ 0.2m BELOW GRADE			
INCHES	TIME MIN:SEC	DIFFERENCE MIN:SEC	MIN/INCH
0	10:05		
1	12:20	02:15	2.25
2	19:10	06:50	6.83
3	28:50	09:40	9.67
4	39:40	10:50	10.83

DEPTH (m)	PIT HOLE 2	
	MATERIAL DESCRIPTION	
0	TOP SOIL, DARK BROWN, ROOTS	
0.15	SILT LOAM, DARK BROWN, MOIST, ROCKS	
1.2		

DEPTH (m)	PIT HOLE 4	
	MATERIAL DESCRIPTION	
0	TOP SOIL, DARK BROWN, ROOTS	
0.2	BROWN SILT LOAM, SOME ROOTS, SOME ROCKS	
0.7	LOAM, GRAYISH, ROCKS	
1.1		

PERCOLATION # 4 @ 0.25m BELOW GRADE			
INCHES	TIME MIN:SEC	DIFFERENCE MIN:SEC	MIN/INCH
0	14:25		
1	19:20	04:55	4.92
2	27:30	08:10	8.17
3	45:10	17:40	17.67

To: CAO for the Electoral Area Services Committee

Date: 2018-12-11

From: Andrea Antifaeff, Planner I

File No: 3090-20-2018-32

Subject: Application for Development Variance Permit 2018-32 to reduce the flanking street setback to permit the addition to a mobile home at 10435 Rutley Road, Electoral Area D

RECOMMENDATION

THAT the Fraser Valley Regional District Board issue Development Variance Permit 2018-32 to reduce the flanking street setback from 25 feet (7.6 metres) to 7.9 feet (2.4 metres), to the foundation and 6.9 feet (2.1 metres) to the eave, to facilitate an addition to a mobile home at 10435 Rutley Road, Area "D", subject to consideration of any comments or concerns raised by the public.

AND THAT Development Variance Permit 2018-32 replace and supersede Development Variance Permit 2018-20 and Development Variance Permit 2017-12 and that both Development Variance Permits be cancelled and removed from title.

STRATEGIC AREA(S) OF FOCUS

Provide Responsive & Effective Public Services

BACKGROUND

The owners of the property have made an application for a Development Variance Permit (DVP) in order to reduce the required setback to a flanking street lot line as outlined in *Zoning By-law for Electoral Area "D", 1976 of the Regional District of Fraser-Cheam*.

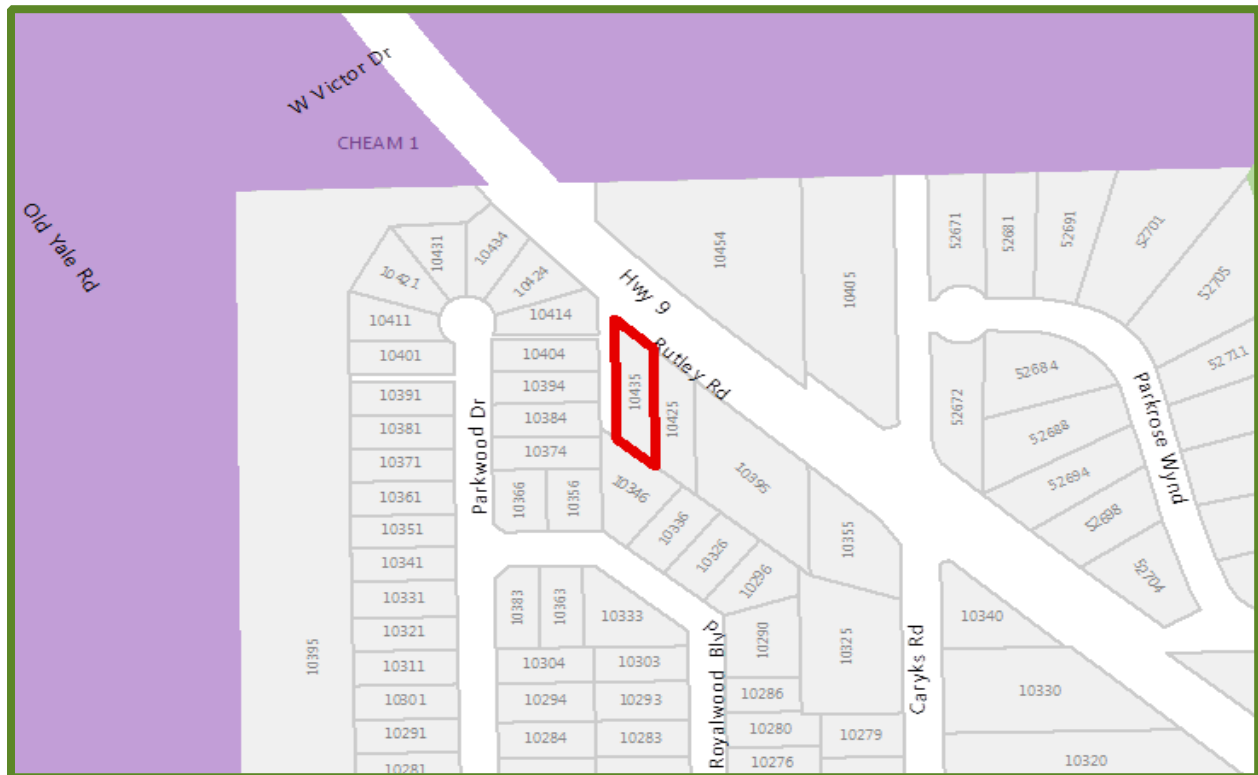
PROPERTY DETAILS			
Electoral Area	D		
Address	10435 Rutley Road		
PID	009-088-229		
Folio	733.06643.050		
Lot Size	0.34 acres		
Owner	Willem-Jan Kersten & Berendina Quik	Agent	n/a
Current Zoning	Country Residential (CR)	Proposed Zoning	No change
Current OCP	Suburban Residential	Proposed OCP	No change

Current Use	Residential	Proposed Use	No change
Development Permit Areas	None		
Agricultural Land Reserve	No		

ADJACENT ZONING & LAND USES

North	^	Hwy 9
East	>	Country Residential (CR), Single Family Dwelling
West	<	Suburban Residential 2 (SBR-2), Single Family Dwelling
South	v	Suburban Residential 2 (SBR-2), Single Family Dwelling

NEIGHBOURHOOD MAP



PROPERTY MAP



DISCUSSION

The owners of the subject property are undertaking a significant addition to their existing mobile home. As part of the building permit process the owners were required to obtain a forms survey. Upon receipt of the forms survey the owners realized that there was a discrepancy between the site plan submitted for DVP 2018-20 and the forms survey. The owners have therefore applied for another variance to bring the proposed addition into compliance. Appendix A shows the forms survey received.

History of Issued Variances

DVP 2017-12

At the FVRD Board meeting on June 27, 2017 the board issued Development Variance Permit 2017-12 reducing the flanking street setback along the west side of the property line from 25 feet (7.62 metres) to 14.25 feet (4.34 metres), clear to sky, to enclose a patio and for the construction of an addition to the mobile home.

DVP 2018-20

At the FVRD Board meeting on June 26, 2018 the board issued Development Variance Permit 2018-20 reducing the flanking street setback along the west side of the property line from 25 feet (7.62 metres) to 8.5 feet (2.6 metres), clear to sky, for the construction of an addition to the mobile home. Development Variance Permit 2018-20 replaced Development Variance Permit 2017-12.

Development Variance Permit	Required	Proposed	Variance
DVP 2017-12 (June 2017)	25 feet (7.62 metres)	14.25 feet (4.34 metres) to eave	10.75 feet (3.28 metres)
DVP 2018-20 (June 2018)	25 feet (7.62 metres)	8.5 feet (2.6 metres) to eave	16.5 feet (5.02 metres)
DVP 2018-32 (December 2018)	25 feet (7.62 metres)	7.9 feet (2.4 metres) to foundation 6.9 feet (2.1 metres) to eave	17.1 feet (5.22 metres) 18.1 feet (5.52 metres)

Bylaw Enforcement

The construction of an enclosed patio and mobile home addition commenced without a building permit. Consequently, the property is in bylaw contravention for construction without a permit. In order to bring the property back into conformity, the property owners are cooperating with the FVRD and MOTI, and have applied for a building permit for the works (BP013903). The owners have also applied for and have been issued a permit from MOTI to construct within the 3.0 metre MOTI setback (unconstructed road).

Building Permit – BP013903

The property owners were issued a building permit on August 10, 2018 and construction commenced. The property owners informed the FVRD building department of the discrepancy between the forms survey obtained and the site plan previously submitted. After notification a FVRD building inspector posted the mobile home addition with a Stop Work Notice on October 26, 2018. The reduced setback will not have effect on fire separation requirements.

Property History

The subject property was issued a building permit for a carport in 1984. To issue the building permit for the carport, the property owners required a setback relaxation to the west property line (flanking street). The owners appealed to the Board of Variance for setback relief to allow the construction of a carport and the request was granted June 8, 1984. The Board of Variance relaxed the setback 15 feet.

Variance Requested – DVP 2018-32

Application Rationale

The applicant advises that the reason in support of their variance is: After the forms survey was completed, it was discovered that there was a discrepancy between the survey and the site plan previously submitted. Construction has already commenced and now the foundation is not in compliance.

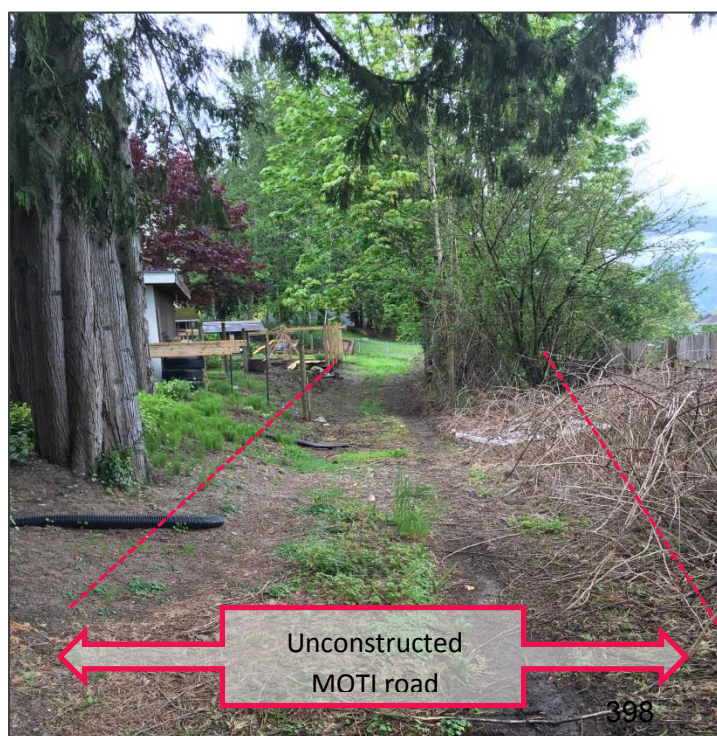
Flanking Street Variance

The owners are seeking an 18 foot (5.5 metre) relaxation to the required flanking street setback, reducing the setback requirement from 25 feet (7.6 metres) to 7.9 feet (2.4 metres), to the foundation and 6.9 feet (2.1 metres) to the eave.

The flanking street of 10435 Rutley Road is an un-developed Ministry of Transportation and Infrastructure (MOTI) road right-of-way that lies adjacent to the west property line. Figure 1 demonstrates the un-developed road. The mobile home addition encroaches into the 3.0 metre MOTI setback (unconstructed road) by 0.9 metres (3 feet). MOTI has issued a permit to reduce the building setback to less than 3.0 metres from the property line fronting an unconstructed road (Appendix B). MOTI has indicated there are no plans to construct the road; however, if plans change the property owners would have to remove the portions of any building within 3.0 metres of the road right-of-way. The Ministry cannot guarantee that the road will not be constructed at some point in the future. The MOTI permit may be terminated any time at the discretion of the Minister.

Development Variance Permit 2018-32 would replace Development Variance Permit 2018-20.

Figure 1 – West property line adjacent to MOTI unconstructed road



Neighbourhood Notification and Input

All property owners within 30 metres of the property will be notified by the FVRD of the development variance permit application and be given the opportunity to provide written comments or attend the Board meeting to state their comments. FVRD staff encourage the applicant to advise neighbouring property owners and residents of the requested variance in advance of the mail-out notification. To date no letters of support or objection have been submitted.

COST

The application fee of \$350.00 has been paid by the applicant.

CONCLUSION

The property owners have applied for a DVP to reduce the required flanking street setback. If MOTI rescinds their encroachment permit, the property owners would have to remove the portions of any building within 3.0 metres of the road right-of-way. We would normally want to avoid this situation, but given that 1. The owners were attempting to comply and the siting is the result of a construction error; and, 2. MOTI is unlikely to develop the unconstructed road; staff recommend that the FVRD Board issue the permit. The variance is not anticipated to negatively affect surrounding properties, given the reduced setback is to an unconstructed MOTI road and the previous DVP was approved in 2018 and did not receive any objections from the neighbourhood. The property also has an irregular configuration with the siting of the existing mobile home.

OPTIONS

Option 1 – Issue (Staff Recommendation)

Staff recommend that the FVRD Board issue Development Variance Permit 2018-32 for the property located at 10435 Rutley Road, Electoral Area D to reduce the required flanking street setback from 25 feet (7.62 metres) to 7.9 feet (2.4 metres), to the foundation and 6.9 feet (2.1 metres) to the eave, subject to consideration of any comments or concerns raised by the public.

Option 2 – Refuse

If the Board wishes to refuse the application, the following motion would be appropriate:

MOTION: THAT the Fraser Valley Regional District Board refuse Development Variance Permit 2018-32 for the property located at 10435 Rutley Road, Electoral Area D.

Option 3 – Refer to Staff

If the Board wishes to refer the application back to staff to address outstanding issues, the following motion would be appropriate:

MOTION: THAT the Fraser Valley Regional District Board refer the application for Development Variance Permit 2018-32 for the property located at 10435 Rutley Road, Electoral Area D to FVRD Staff.

COMMENTS BY:

Graham Daneluz, Deputy Director of Planning & Development: Reviewed and supported.

Margaret Thornton, Director of Planning & Development: Reviewed and supported.

Mike Veenbaas, Director of Financial Services: No further financial comments.

Paul Gipps, Chief Administrative Officer: Reviewed and supported

Appendix A Forms Survey

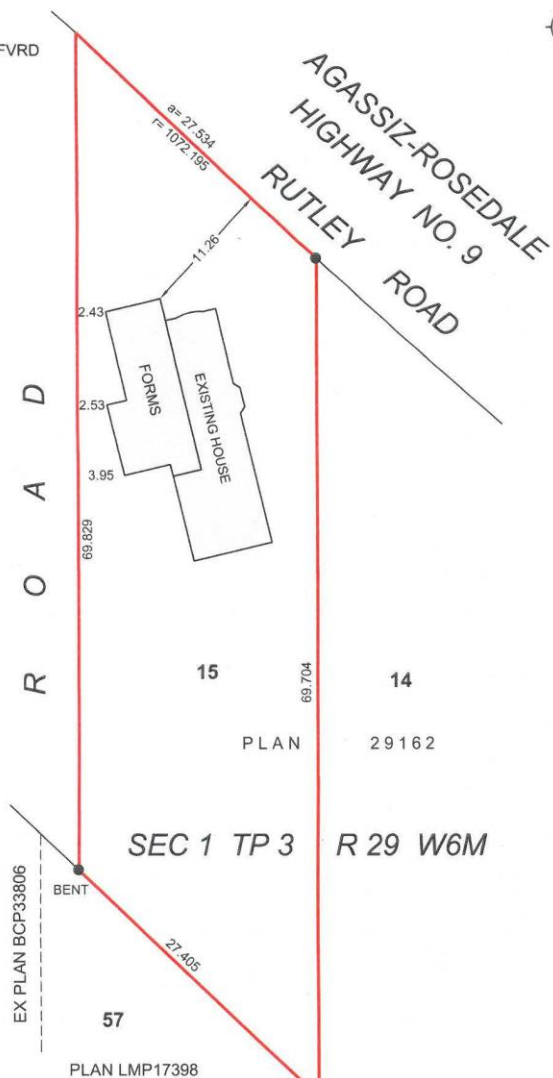
BC LAND SURVEYOR'S CERTIFICATE OF FORM LOCATION ON LOT 15 SECTION 1 TOWNSHIP 3 RANGE 29 W6M NEW WESTMINSTER DISTRICT PLAN 29162

CLIENT: Willem Kersten
PID: 009-088-229
CIVIC ADDRESS: 10435 Rutley Road, FVRD
BUILDING PERMIT: 013903
SCALE: 1:400
FB: C375/1111-112

REGISTERED DOCUMENTS:

MORTGAGE: CA1440571

SCALE 1:400



● DENOTES STANDARD IRON POST FOUND

NOTES:

- THIS PLAN HAS BEEN PREPARED BASED ON LAND TITLE & SURVEY AUTHORITY RECORDS (AND A FIELD SURVEY) [PLAN 29162].
- OFFSET DISTANCES ARE MEASURED TO THE EXTERIOR OF FOUNDATION FORMS AND ARE PERPENDICULAR TO PROPERTY LINES.
- THIS PLAN WAS PREPARED FOR FVRD FORMS BYLAW COMPLIANCE AND IS FOR THE EXCLUSIVE USE OF KERSTEN WILLEM.
- THIS DOCUMENT SHALL NOT BE USED TO DEFINE PROPERTY LINES OR PROPERTY CORNERS.
- VECTOR GEOMATICS AND SIGNATORY ACCEPT NO RESPONSIBILITY FOR, AND HEREBY DISCLAIM, ALL OBLIGATIONS AND LIABILITIES FOR DAMAGES INCLUDING, BUT NOT LIMITED TO, DIRECT, INDIRECT, SPECIAL, AND CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH ANY DIRECT OR INDIRECT USE OR RELIANCE UPON THE PLAN BEYOND ITS INTENDED USE.

CERTIFIED CORRECT THIS
NOVEMBER 1, 2018
WILLIAM
TUNBRIDGE
ALLAN TUNBRIDGE, B.C.L.S. 703
This Document is Not Valid Unless Originally Signed and Sealed

VECTOR
GEOMATICS LAND SURVEYING LTD.
Chilliwack Office
6-7965 Venture Place
Chilliwack, B.C. V2R 0K2
Ph.: (604)792-4264
www.vectorgeomatics.com

File: CW1800121P15 Date: 2018-11-01

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Appendix B MOTI Permit



BRITISH
COLUMBIA

Ministry of Transportation
and Infrastructure

Permit/File Number: 2017-03450 rev. 2

Office: Chilliwack Area Office

PERMIT TO REDUCE BUILDING SETBACK LESS THAN 4.5 METRES FROM THE PROPERTY LINE FRONTING A PROVINCIAL PUBLIC HIGHWAY

PURSUANT TO TRANSPORTATION ACT AND/OR THE INDUSTRIAL ROADS ACT AND/OR THE
MOTOR VEHICLE ACT AND/OR AS DEFINED IN THE NISGA'A FINAL AGREEMENT AND THE
NISGA'A FINAL AGREEMENT ACT.

BETWEEN:

The Minister of Transportation and Infrastructure

Chilliwack Area Office
45890 Victoria Avenue
Chilliwack, BC V2P 2T1
Canada

("The Minister")

AND:

Willem J Kersten
10435 Rutley Road
Chilliwack, British Columbia V0X 1X1
Canada

("The Permittee")

WHEREAS:

- A. The Minister has the authority to grant permits for the auxiliary use of highway right of way, which authority is pursuant to both the Transportation Act and the Industrial Roads Act, the Motor Vehicle Act, as defined in the Nisga'a Final Agreement and the Nisga'a Final Agreement Act;
- B. The Permittee has requested the Minister to issue a permit pursuant to this authority for the following purpose:

The construction of a building, the location of which does not conform with British Columbia Regulation 513/04 made pursuant to section 90 of the Transportation Act, S.B.C. 2004, namely; to allow structures within the 3.0m setback from Ministry right of way (unconstructed), as shown on submitted BCLS survey (dated November 1st, 2018).
- C. The Minister is prepared to issue a permit on certain terms and conditions;

ACCORDINGLY, the Minister hereby grants to the Permittee a permit for the Use (as hereinafter defined) of highway right of way on the following terms and conditions:

- 1. This permit may be terminated at any time at the discretion of the Minister of Transportation and Infrastructure, and that the termination of this permit shall not give rise to any cause of action or claim of any nature whatsoever.
- 2. This permit in no way relieves the owner or occupier of the responsibility of adhering to all other legislation, including zoning, and other land use bylaws of a municipality or regional district.
- 3. If the structures are to be removed or destroyed for any reason, they must be replaced at 3.0 meters from the legal boundary of all road allowances.
- 4. Please be advised that in the event of road construction / future road widening, the Ministry of Transportation may ask the applicant to re-locate or remove the permitted structures at the applicant's expense.
- 5. The Ministry of Transportation and Infrastructure will not be held responsible for any damage to the structures.



BRITISH
COLUMBIA

Ministry of Transportation
and Infrastructure

Permit/File Number: 2017-03450 rev. 2

Office: Chilliwack Area Office

The rights granted to the Permittee in this permit are to be exercised only for the purpose as defined in Recital B on page 1.

Dated at Chilliwack, British Columbia, this 15th day of November, 2018

On Behalf of the Minister

SCHEDULE A-4

Permit Application

I / We hereby apply under Part 14 of the *Local Government Act* for a;

☒ Development Variance Permit

☐ Temporary Use Permit

☐ Development Permit

An Application Fee in the amount of \$ _____ as stipulated in FVRD Application Fees Bylaw No. 1231, 2013 must be paid upon submission of this application.

Civic

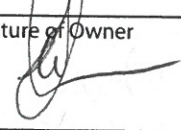
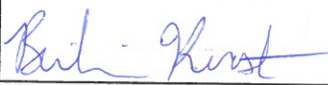
Address 10435 Rutley Rd. PID _____

Legal
Description

Lot _____ Block _____ Section _____ Township _____ Range _____ Plan _____

The property described above is the subject of this application and is referred to herein as the 'subject property.' This application is made with my full knowledge and consent. I declare that the information submitted in support of the application is true and correct in all respects.

Owner's
Declaration

Name of Owner (print) <u>Willem Jan Kersten</u>	Signature of Owner 	Date <u>05/11/2018</u>
Name of Owner (print) <u>Berendina Kersten</u>	Signature of Owner 	Date <u>06/11/2018</u>

Owner's
Contact
Information

Address <u>10435 Rutley Rd.</u>	City <u>Rosedale</u>
Email _____	_____

Office Use Only	Date <u>Nov. 5, 2018</u>	File No.
	Received By <u>KW</u>	Folio No.
	Receipt No.	Fees Paid: \$ <u>350.00</u>

Agent

I hereby give permission to _____ to act as my/our agent in all matters relating to this application.

Only complete this section if the applicant is NOT the owner.

Signature of Owner	Date
Signature of Owner	Date

Agent's contact information and declaration

Name of Agent		Company
Address		City
Email		Postal Code
Phone	Cell	Fax

I declare that the information submitted in support of this application is true and correct in all respects.

Signature of Agent	Date
--------------------	------

Development Details

Property Size _____ Present Zoning _____

Existing Use _____

Proposed Development _____

Proposed Variation / Supplement To Vary the Flanking street setback along the westside of the property line to 2.1m Clear to Sky.

(use separate sheet if necessary)

Reasons in Support of Application I Applied For a previous permit and build accordingly but now There's a discrepancy on the surveyors and Designer approved plans and my Foundation walls are already in place and it doesn't work out to all measurements

Page 2 of 4

**Riparian
Areas
Regulation**

Please indicate whether the development proposal involves residential, commercial, or including vegetation removal or alteration; soil disturbance; construction of buildings and structures; creation of impervious or semi-pervious surfaces; trails, roads, docks, wharves, bridges and, infrastructure and works of any kind – within:

yes no
☐ ☐

30 metres of the high water mark of any water body

yes no
☐ ☐

a ravine or within 30 metres of the top of a ravine bank

"Water body" includes; 1) a watercourse, whether it usually contains water or not; 2) a pond, lake, river, creek, or brook; 3) a ditch, spring, or wetland that is connected by surface flow to 1 or 2 above.

Under the *Riparian Areas Regulation* and the *Fish Protection Act*, a riparian area assessment report may be required before this application can be approved.

**Contaminated
Sites Profile**

Pursuant to the *Environmental Management Act*, an applicant is required to submit a completed "Site Profile" for properties that are or were used for purposes indicated in Schedule 2 of the *Contaminated Sites Regulations*. Please indicate if:

yes no
☐ ☐

the property has been used for commercial or industrial purposes.

If you responded 'yes,' you may be required to submit a Site Profile. Please contact FVRD Planning or the Ministry of Environment for further information.

**Archaeological
Resources**

Are there archaeological sites or resources on the subject property?

yes no I don't know
☐ ☐ ☐

If you responded 'yes' or 'I don't know' you may be advised to contact the Archaeology Branch of the Ministry of Tourism, Sport and the Arts for further information.

Required Information

When providing Application Forms to the applicant, Regional District staff shall indicate which of the following attachments are required for this application. **Additional information may also be required at a later date.**

	Required	Received	Details
Location Map			Showing the parcel (s) to which this application pertains and uses on adjacent parcels
Site Plan At a scale of: 1: _____			Reduced sets of metric plans
			North arrow and scale
			Dimensions of property lines, rights-of-ways, easements
			Location and dimensions of existing buildings & setbacks to lot lines, rights-of-ways, easements
			Location and dimensions of proposed buildings & setbacks to lot lines, rights-of-ways, easements
			Location of all water features, including streams, wetlands, ponds, ditches, lakes on or adjacent to the property
			Location of all existing & proposed water lines, wells, septic fields, sanitary sewer & storm drain, including sizes
			Location, numbering & dimensions of all vehicle and bicycle parking, disabled persons' parking, vehicle stops & loading
			Natural & finished grades of site, at buildings & retaining walls
			Location of existing & proposed access, pathways
			Above ground services, equipment and exterior lighting details
			Location & dimensions of free-standing signs
			Storm water management infrastructure and impermeable surfaces
			Other:
Floor Plans			Uses of spaces & building dimensions
			Other:
Landscape Plan Same scale as site plan			Location, quantity, size & species of existing & proposed plants, trees & turf
			Contour information (_____ metre contour intervals)
			Major topographical features (water course, rocks, etc.)
			All screening, paving, retaining walls & other details
			Traffic circulation (pedestrian, automobile, etc.)
			Other:
Reports			Geotechnical Report
			Environmental Assessment
			Archaeological Assessment
			Other:

The personal information on this form is being collected in accordance with Section 26 of the *Freedom of Information and Protection of Privacy Act, RSBC 1996 Ch. 165* and the *Local Government Act, RSBC 2015 Ch. 1*. It will only be collected, used and disclosed for the purpose of administering matters with respect to planning, land use management and related services delivered, or proposed to be delivered, by the FVRD. Questions about the use of personal information and the protection of privacy may be directed to the FVRD Privacy Officer at 45950 Cheam Avenue, Chilliwack, BC V2P 1N6, Tel: 1-800-528-0061 FOI@fvr.ca.



FRASER VALLEY REGIONAL DISTRICT DEVELOPMENT VARIANCE PERMIT

Permit No. 2018-32

Folio No. 733.06643.050

Issued to: Willem Kersten & Berendina Quik

Address: 10435 Rutley Road, Rosedale, B.C. V0X 1X1

Applicant: Willem Kersten & Berendina Quik

Site Address: 10435 Rutley Road, Rosedale, B.C. V0X 1X1

The lands affected by and subject to this permit are shown on Schedule "A", Location Map, attached hereto, which forms an integral part of this permit, and are legally described as:

LOT 15, SECTION 1, TOWNSHIP 3, RANGE 29, WEST OF THE 6TH MERIDIAN, NEW WESTMINSTER
DISTRICT, PLAN NWP29162
009-088-229

LIST OF ATTACHMENTS

Schedule "A": Location Map

Schedule "B": Site Plan

AUTHORITY TO ISSUE

1. This Development Variance Permit is issued under Part 14 – Division 9 of the *Local Government Act*.

BYLAWS SUPPLEMENTED OR VARIED

Zoning By-law for Electoral Area "D", 1976 of the Regional District of Fraser-Cheam is **varied** as follows:

Section 604(a) Highways: is reduced from 25 feet (7.6 metres) for the flanking street setback along the west side of the property line to 7.9 feet (2.4 metres), to the foundation and 6.9 feet (2.1 metres) to the eave, for the construction of an addition to a mobile home.

SPECIAL TERMS AND CONDITIONS

1. No variances other than those specifically set out in this permit are implied or to be construed.
2. If the holder of this permit does not commence the construction with respect to which the Permit was issued within two (2) years after the date of the permit, this permit shall lapse.
3. Development of the site shall be undertaken in accordance with the Site Plan attached hereto as Schedule "B".

4. All new construction shall be generally in compliance with Building Permit No. 013903.

GENERAL TERMS AND CONDITIONS

1. This Development Variance Permit is issued Pursuant to Part 14 – Division 9 of the *Local Government Act*.
2. This Development Variance Permit shall not vary the permitted uses or densities of land use in the applicable zoning bylaw nor a flood plain specification designated under Section 524 of the *Local Government Act*.
3. Nothing in this permit shall in any way relieve the developer's obligation to ensure that the development proposal complies in every way with the statutes, regulations, requirements, covenants and licences applicable to the undertaking.
4. Nothing in this permit shall in any way relieve the developers obligation to comply with all setback regulations for construction of structures or provision of on-site services pursuant to the *Public Health Act*, the *Fire Services Act*, the *Safety Standards Act*, and any other provincial statutes.

SECURITY DEPOSIT

As a condition of the issuance of this Permit, and pursuant to Section 502 of the *Local Government Act*, the Regional Board is holding the security set out below to ensure that development is carried out in accordance with the terms and conditions of this Permit

Should the holder of this permit:

- a. fail to complete the works required to satisfy the landscaping conditions contained herein,
- b. contravene a condition of the permit in such a way as to create an unsafe condition,

The Regional Board may undertake and complete the works required to satisfy the landscaping conditions, or carry out any construction required to correct an unsafe condition at the cost of the holder of the permit and may apply the security in payment of the costs of the works, with any excess to be returned to the holder of the permit.

Security Posted: (a) an irrevocable letter of credit in the amount of: \$ <N/A> .
 (b) the deposit of the following specified security: \$ <N/A> .

Note: The Regional District shall file a notice of this permit in the Land Title Office stating that the land described in the notice is subject to Development Variance Permit Number 2018-32. The notice shall take the form of Appendix I attached hereto.

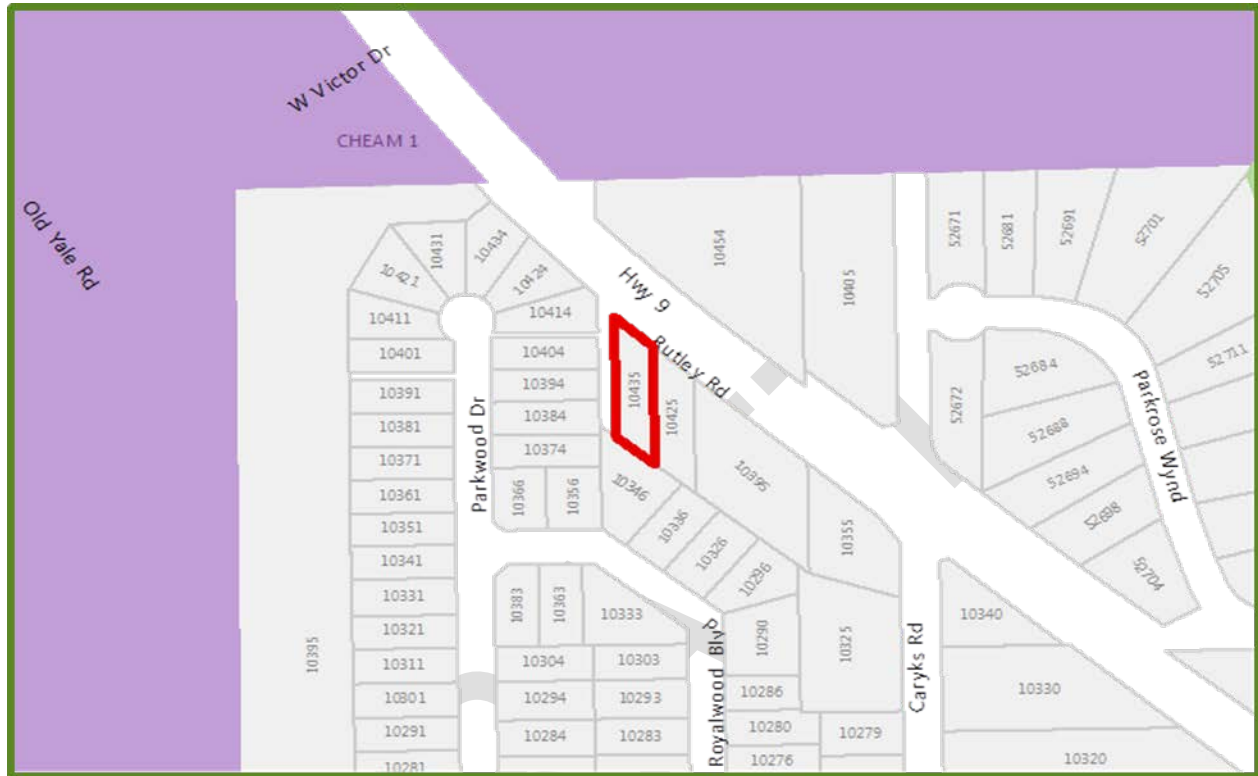
AUTHORIZING RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF THE FRASER VALLEY REGIONAL DISTRICT ON THE <DAY> DAY OF <MONTH>, <YEAR> .

Chief Administrative Officer / Deputy

THIS IS NOT A BUILDING PERMIT

DRAFT

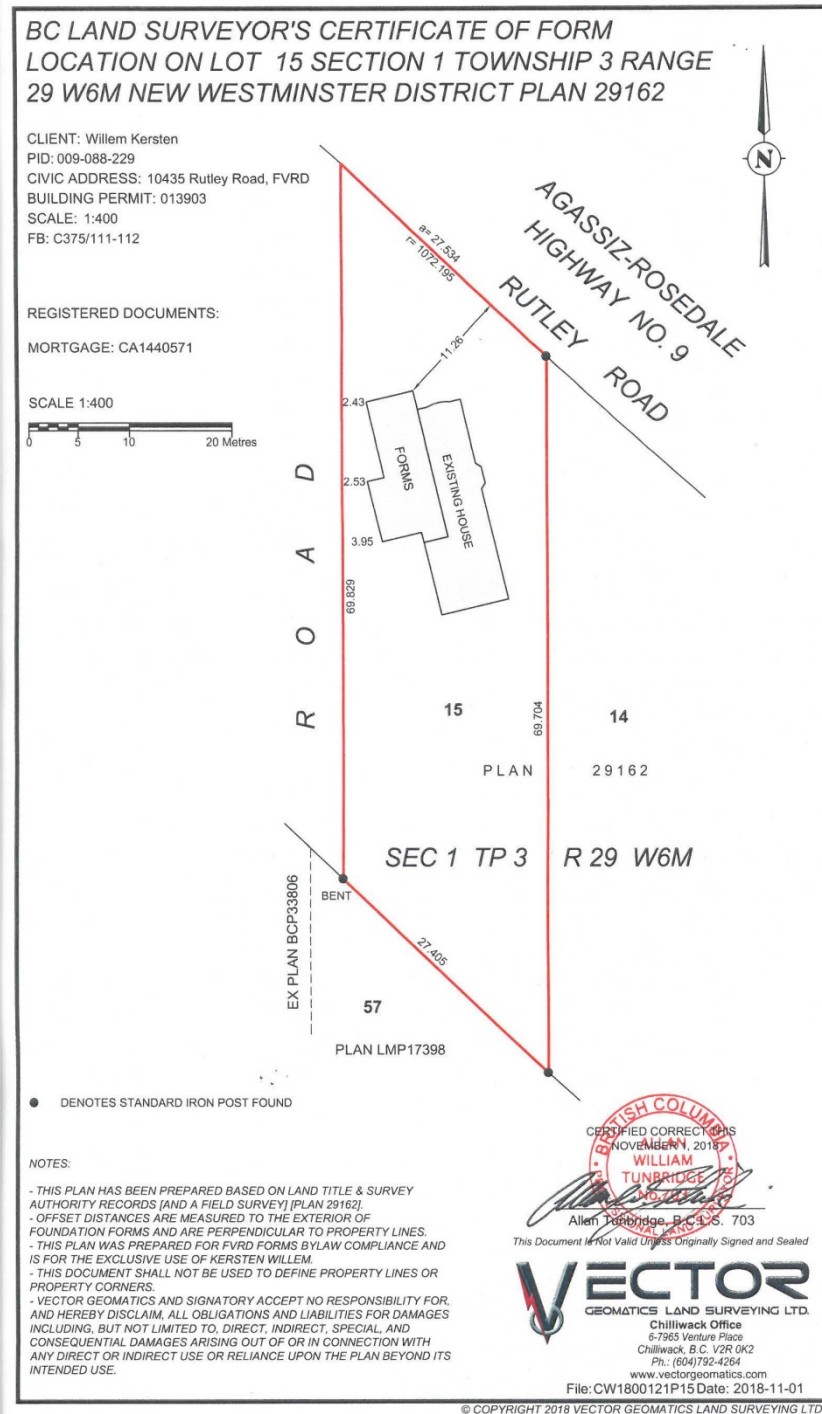
DEVELOPMENT VARIANCE PERMIT 2018-32
SCHEDULE "A"
Location Map



DEVELOPMENT VARIANCE PERMIT 2018-32

SCHEDULE "B"

Site Plan



To: CAO for the Electoral Area Services Committee

Date: 2018-12-11

From: Julie Mundy, Planning Technician

File No: 3090-20-2018-33

Subject: Application for Development Variance Permit 2018-33 to reduce the interior side lot line setback to permit the construction of a dairy barn at Catherwood Road, Electoral Area G

RECOMMENDATION

THAT the Fraser Valley Regional District Board issue Development Variance Permit 2018-33 for the property at 9518 Catherwood Road, Electoral Area G, to reduce the interior side lot line setback from 30.0 metres (98.4 feet) to 9.0 metres (29.5 feet), measured clear to sky, to facilitate the construction of a cattle barn, subject to consideration of any comments or concerns raised by the public.

AND THAT Development Variance Permit 2018-33 replace and supersede Development Variance Permit 2018-25 and that Development Variance Permit 2018-25 be removed from title.

STRATEGIC AREA(S) OF FOCUS

Provide Responsive & Effective Public Services

Foster a Strong & Diverse Economy

BACKGROUND

The property owners have made an application for a Development Variance Permit (DVP) to reduce the interior side lot line setback for a cattle barn as outlined in *Dewdney-Alouette Regional District Land Use and Subdivision Regulation Bylaw No. 559-1992*.

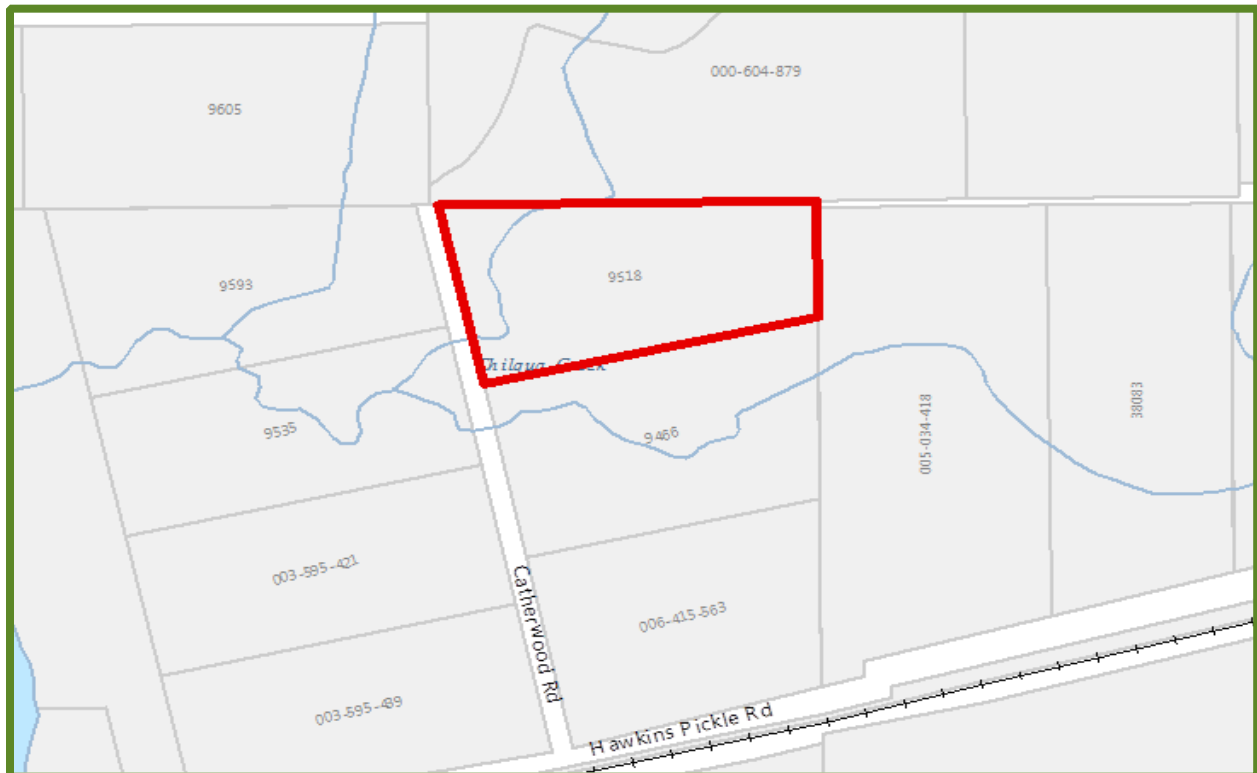
PROPERTY DETAILS			
Electoral Area	G		
Address	9518 Catherwood Road		
PID	006-415-571		
Folio	775.01165.000		
Lot Size	14.5 acres		
Owner	Vandeburg Farms Ltd.	Agent	Jordan Kloot
Current Zoning	Floodplain Agriculture (A-2)	Proposed Zoning	No change
Current OCP	Agricultural (AG)	Proposed OCP	No change
Current Use	Farm	Proposed Use	No change

Development Permit Areas	DPA 2-G (RAR)
Agricultural Land Reserve	Yes

ADJACENT ZONING & LAND USES

North	^	Floodplain Agriculture (A-2), Residential / Farm
East	>	Floodplain Agriculture (A-2), Residential / Farm (owned by applicants)
West	<	Floodplain Agriculture (A-2), Residential / Farm
South	v	Floodplain Agriculture (A-2), Residential / Farm (owned by applicants)

NEIGHBOURHOOD MAP



PROPERTY MAP



DISCUSSION

The owners of the property are proposing to construct a cattle barn at 9518 Catherwood Road. The property is within the Agricultural Land Reserve and is currently being used as a dairy farm. The property owner has applied for a Building Permit and a Development Variance Permit to locate a new barn in a manner that efficiently ties into their existing dairy farm operation. The requested variance is to reduce the interior side lot line setback from 30 metres to 9 metres. A Development Variance Permit was issued to the applicant to construct a barn in July 2018. However, the placement of the barn now requires a revised variance because the building foundation was built closer to the lot line than the issued variance permit allows. Appendix A shows the proposed site plan.

History of Issued Variances – DVP 2018-25

At the FVRD Board meeting on July 10, 2018, the Board issued Development Variance Permit 2018-25 reducing the interior side setback from 30.0 metres (98.4 feet) to 15.0 metres, clear to sky, to facilitate the construction of a cattle barn.

Variance Request – DVP 2018-33

Since the issuance of DVP 2018-25, the applicant poured the barn foundation and had the building footprint surveyed by a professional surveyor. The survey identified the foundation to be only 10.1

metres from the interior property line (instead of the approved 15 metres). As the foundation is build closer to the property line than DVP 2018-25 permits, another variance is requested.

Application Rationale

The applicant advises the reasons in support of the variance are 1) to provide additional room for livestock, and 2) to enable the proposed barn to be sited closely to the existing barns which will contribute to a successful farm business.

Covenant Tying Two Lots Together

The interior side lot line for 9518 Catherwood Road is shared with 9466 Catherwood Road, which is also owned by the applicant. The site plan for the proposed cattle barn shows that two barns and a shop were previously constructed across the interior side property line, resulting in the structures being located on both 9518 Catherwood and 9466 Catherwood Road. To address this issue, the property owners have registered a covenant in favour of the Regional District which states the properties will be treated as a single parcel for as long as the structures that cross the property boundary exist and that the property owner cannot sell, agree to sell, transfer or otherwise dispose of either of the parcels individually.

The proposed variance does not have any adverse Building Permit implications, as the two lots of 9518 and 9466 Catherwood Road are tied together as one parcel.

Development Variance Permit 2018-33 would replace Development Variance Permit 2018-25.

Summary of Interior Lot Line Setbacks		
Zoning bylaw -	Required -	30 metres (98.4 feet)
DVP 2018-25 -	Issued -	15 metres (49.2 feet)
DVP 2018-33 -	Proposed -	9 metres (29.5 feet)

Neighbourhood Notification and Input

All property owners within 30 metres of the property will be notified by the FVRD of the Development variance permit application and be given the opportunity to provide written comments or attend the Board meeting to state their comments. FVRD staff encourage the applicant to advise neighbouring property owners and residents of the requested variance in advance of the mail-out notification. To date no letters of support or objection have been submitted.

Bylaw Enforcement

A mobile home was placed on the property without a building permit in 1998. Consequently, the property is in bylaw contravention for construction without a permit. FVRD staff are following up on this bylaw contravention, and the applicant is taking steps to remedy to contravention.

COST

The application fee of \$350.00 has been paid by the applicant.

CONCLUSION

Staff recommend that the FVRD Board issue the Development Variance Permit to reduce the interior side setback for a cattle barn for 9518 Catherwood Road. The variance is not anticipated to negatively affect the surrounding properties as there is already a dairy farm operation occurring on the property, and the subject property and the impacted neighbouring property are tied together by a covenant. Furthermore, DVP 2018-25 was approved in July 2018 and did not receive any opposition from the neighbourhood.

OPTIONS

Option 1 – Issue (Staff Recommendation)

Staff recommend that the FVRD Board issue Development Variance Permit 2018-33 for the property at 9518 Catherwood Road, Electoral Area G to reduce the interior side setback from 30 metres (98.4 feet) to 10.1 metres (33.1 feet), subject to consideration of any comments or concerns raised by the public.

Option 2 – Refuse

If the Board wishes to refuse the application, the following motion would be appropriate:

MOTION: THAT the Fraser Valley Regional District Board refuse Development Variance Permit 2018-33 for the property at 9518 Catherwood Road, Electoral Area G.

Option 3 – Refer to Staff

If the Board wishes to refer the application back to staff to address outstanding issues, the following motion would be appropriate:

MOTION: THAT the Fraser Valley Regional District Board refer the application for Development Variance Permit 2018-33 for the property at 9518 Catherwood Road, Electoral Area G to FVRD Staff.

COMMENTS BY:

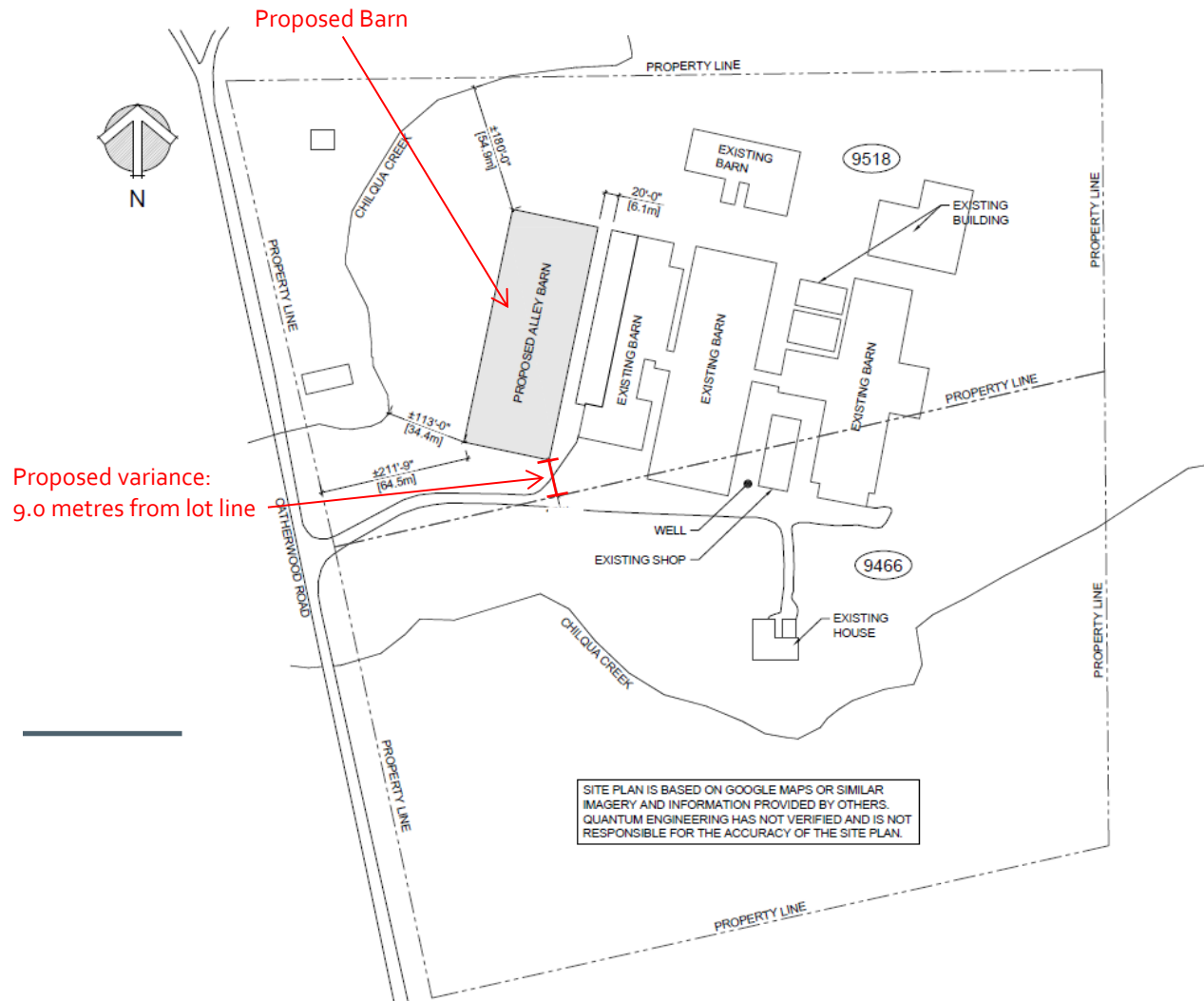
Graham Daneluz, Deputy Director of Planning & Development: Reviewed and supported

Margaret Thornton, Director of Planning & Development: Reviewed and supported

Mike Veenbaas, Director of Financial Services: No further financial comments.

Paul Gipps, Chief Administrative Officer: Reviewed and supported

Site Plan I



Site Plan II (with surveyed distances)



SCHEDULE A-4

Permit Application

I / We hereby apply under Part 14 of the *Local Government Act* for a;

☒ Development Variance Permit

☐ Temporary Use Permit

☐ Development Permit

An Application Fee in the amount of \$ _____ as stipulated in FVRD Application Fees Bylaw No. 1231, 2013 must be paid upon submission of this application.

Civic Address 9518 Catherwood Rd Dewdney PID _____

Legal Description Lot _____ Block _____ Section _____ Township _____ Range _____ Plan _____

The property described above is the subject of this application and is referred to herein as the 'subject property.' This application is made with my full knowledge and consent. I declare that the information submitted in support of the application is true and correct in all respects.

Owner's
Declaration

Name of Owner (print) <u>Ken Vanderburgh</u>	Signature of Owner <u>[Signature]</u>	Date
Name of Owner (print) <u>Jordan Kloot</u>	Signature of Owner <u>[Signature]</u>	Date <u>Nov 15/2018</u>

Owner's
Contact
Information

Address <u>9518 Catherwood Rd</u>	City <u>Dewdney</u>
Email	Postal Code

Office Use Only	Date	File No.
	Received By	Folio No.
	Receipt No.	Fees Paid: \$

Agent

I hereby give permission to _____ to act as my/our agent in all matters relating to this application.

Only complete this section if the applicant is NOT the owner.

Signature of Owner	Date
Signature of Owner	Date

Agent's contact information and declaration

Name of Agent		Company
Address		City
Email		Postal Code
Phone	Cell	Fax

I declare that the information submitted in support of this application is true and correct in all respects.

Signature of Agent	Date
--------------------	------

Development Details

Property Size _____ Present Zoning ALR

Existing Use Dairy farm

Proposed Development Dairy barn expansion

Proposed Variation / Supplement Additional length of Dairy facility to allow extra room for livestock

(use separate sheet if necessary)

Reasons in Support of Application This proposed dairy barn addition is to allow for more space for livestock and comfort. Proposed location is tight to other structures in area and other boundaries. Only location on property currently for expansion to take place.

Page 2 of 4

**Riparian
Areas
Regulation**

Please indicate whether the development proposal involves residential, commercial, or including vegetation removal or alteration; soil disturbance; construction of buildings and structures; creation of impervious or semi-pervious surfaces; trails, roads, docks, wharves, bridges and, infrastructure and works of any kind – within:

yes

☐

no

☐

30 metres of the high water mark of any water body

yes

☐

no

☐

a ravine or within 30 metres of the top of a ravine bank

"Water body" includes; 1) a watercourse, whether it usually contains water or not; 2) a pond, lake, river, creek, or brook; 3) a ditch, spring, or wetland that is connected by surface flow to 1 or 2 above.

Under the *Riparian Areas Regulation* and the *Fish Protection Act*, a riparian area assessment report may be required before this application can be approved.

**Contaminated
Sites Profile**

Pursuant to the *Environmental Management Act*, an applicant is required to submit a completed "Site Profile" for properties that are or were used for purposes indicated in Schedule 2 of the *Contaminated Sites Regulations*. Please indicate if:

yes

☐

no

☐

the property has been used for commercial or industrial purposes.

If you responded 'yes,' you may be required to submit a Site Profile. Please contact FVRD Planning or the Ministry of Environment for further information.

**Archaeological
Resources**

Are there archaeological sites or resources on the subject property?

yes

☐

no

☐

I don't know

☐

If you responded 'yes' or 'I don't know' you may be advised to contact the Archaeology Branch of the Ministry of Tourism, Sport and the Arts for further information.

Required Information

When providing Application Forms to the applicant, Regional District staff shall indicate which of the following attachments are required for this application. **Additional information may also be required at a later date.**

	Required	Received	Details
Location Map			Showing the parcel (s) to which this application pertains and uses on adjacent parcels
Site Plan At a scale of: 1: _____			Reduced sets of metric plans
			North arrow and scale
			Dimensions of property lines, rights-of-ways, easements
			Location and dimensions of existing buildings & setbacks to lot lines, rights-of-ways, easements
			Location and dimensions of proposed buildings & setbacks to lot lines, rights-of-ways, easements
			Location of all water features, including streams, wetlands, ponds, ditches, lakes on or adjacent to the property
			Location of all existing & proposed water lines, wells, septic fields, sanitary sewer & storm drain, including sizes
			Location, numbering & dimensions of all vehicle and bicycle parking, disabled persons' parking, vehicle stops & loading
			Natural & finished grades of site, at buildings & retaining walls
			Location of existing & proposed access, pathways
			Above ground services, equipment and exterior lighting details
			Location & dimensions of free-standing signs
			Storm water management infrastructure and impermeable surfaces
			Other:
Floor Plans			Uses of spaces & building dimensions
			Other:
Landscape Plan Same scale as site plan			Location, quantity, size & species of existing & proposed plants, trees & turf
			Contour information (_____ metre contour intervals)
			Major topographical features (water course, rocks, etc.)
			All screening, paving, retaining walls & other details
			Traffic circulation (pedestrian, automobile, etc.)
			Other:
Reports			Geotechnical Report
			Environmental Assessment
			Archaeological Assessment
			Other:

The personal information on this form is being collected in accordance with Section 26 of the *Freedom of Information and Protection of Privacy Act, RSBC 1996 Ch. 165* and the *Local Government Act, RSBC 2015 Ch. 1*. It will only be collected, used and disclosed for the purpose of administering matters with respect to planning, land use management and related services delivered, or proposed to be delivered, by the FVRD. Questions about the use of personal information and the protection of privacy may be directed to the FVRD Privacy Officer at 45950 Cheam Avenue, Chilliwack, BC V2P 1N6, Tel: 1-800-528-0061 FOI@fvr.ca.



FRASER VALLEY REGIONAL DISTRICT DEVELOPMENT VARIANCE PERMIT

Permit No. Development Variance Permit 2018-33 **Folio No.** 775.01165.000

Issued to: Vandeburg Farms Ltd., INC NO. 310487

Address: 33832 South Fraser Wat, Abbotsford, BC, V2S 2C5

Applicant: Kloot Construction (Jordan Kloot)

Site Address: 9518 Catherwood Road, Electoral Area "G"

The lands affected by and subject to this permit are shown on Schedule "A", Location Map, attached hereto, which forms an integral part of this permit, and are legally described as:

LOT 3, BLOCK 1, SECTION 33, TOWNSHIP 20, NEW WESTMINSTER DISTRICT, PLAN NWP3254
PID: 006-415-571

LIST OF ATTACHMENTS

Schedule "A": Location Map

Schedule "B": Site Plan

AUTHORITY TO ISSUE

1. This Development Variance Permit is issued under Part 14 – Division 9 of the *Local Government Act*.

BYLAWS SUPPLEMENTED OR VARIED

Dewdney-Alouette Regional District Land Use and Subdivision and Regulation Bylaw No. 559-1992 is **varied** as follows:

Section 412 Siting for Buildings, Structures and Uses

Siting for Agricultural Uses

(8)(a) from 30.0 meters to 9.0 metres, clear to sky from the interior side lot line (south property lot line) for the construction of a cattle barn.

SPECIAL TERMS AND CONDITIONS

1. No variances other than those specifically set out in this permit are implied or to be construed.
2. If the holder of this permit does not commence the construction with respect to which the Permit was issued within two (2) years after the date of the permit, this permit shall lapse.

3. Development of the site shall be undertaken in accordance with the Site Plan attached hereto as Schedule "B".
4. All new construction shall be generally in compliance with Building Permit No. BP014326

GENERAL TERMS AND CONDITIONS

1. This Development Variance Permit is issued Pursuant to Part 14 – Division 9 of the *Local Government Act*.
2. This Development Variance Permit shall not vary the permitted uses or densities of land use in the applicable zoning bylaw nor a flood plain specification designated under Section 524 of the *Local Government Act*.
3. Nothing in this permit shall in any way relieve the developer's obligation to ensure that the development proposal complies in every way with the statutes, regulations, requirements, covenants and licences applicable to the undertaking.
4. Nothing in this permit shall in any way relieve the developers obligation to comply with all setback regulations for construction of structures or provision of on-site services pursuant to the *Public Health Act*, the *Fire Services Act*, the *Safety Standards Act*, and any other provincial statutes.

SECURITY DEPOSIT

As a condition of the issuance of this Permit, and pursuant to Section 502 of the *Local Government Act*, the Regional Board is holding the security set out below to ensure that development is carried out in accordance with the terms and conditions of this Permit

Should the holder of this permit:

- a. fail to complete the works required to satisfy the landscaping conditions contained herein,
- b. contravene a condition of the permit in such a way as to create an unsafe condition,

The Regional Board may undertake and complete the works required to satisfy the landscaping conditions, or carry out any construction required to correct an unsafe condition at the cost of the holder of the permit and may apply the security in payment of the costs of the works, with any excess to be returned to the holder of the permit.

Security Posted: (a) an irrevocable letter of credit in the amount of: \$ <N/A> .
 (b) the deposit of the following specified security: \$ <N/A> .

Note: The Regional District shall file a notice of this permit in the Land Title Office stating that the land described in the notice is subject to Development Variance Permit Number 2018-33. The notice shall take the form of Appendix I attached hereto.

AUTHORIZING RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF THE FRASER VALLEY REGIONAL DISTRICT ON THE 19th DAY OF DECEMBER, 2018.

Chief Administrative Officer / Deputy

THIS IS NOT A BUILDING PERMIT

DRAFT

DEVELOPMENT VARIANCE PERMIT 2018-33
SCHEDULE "A"
Location Map

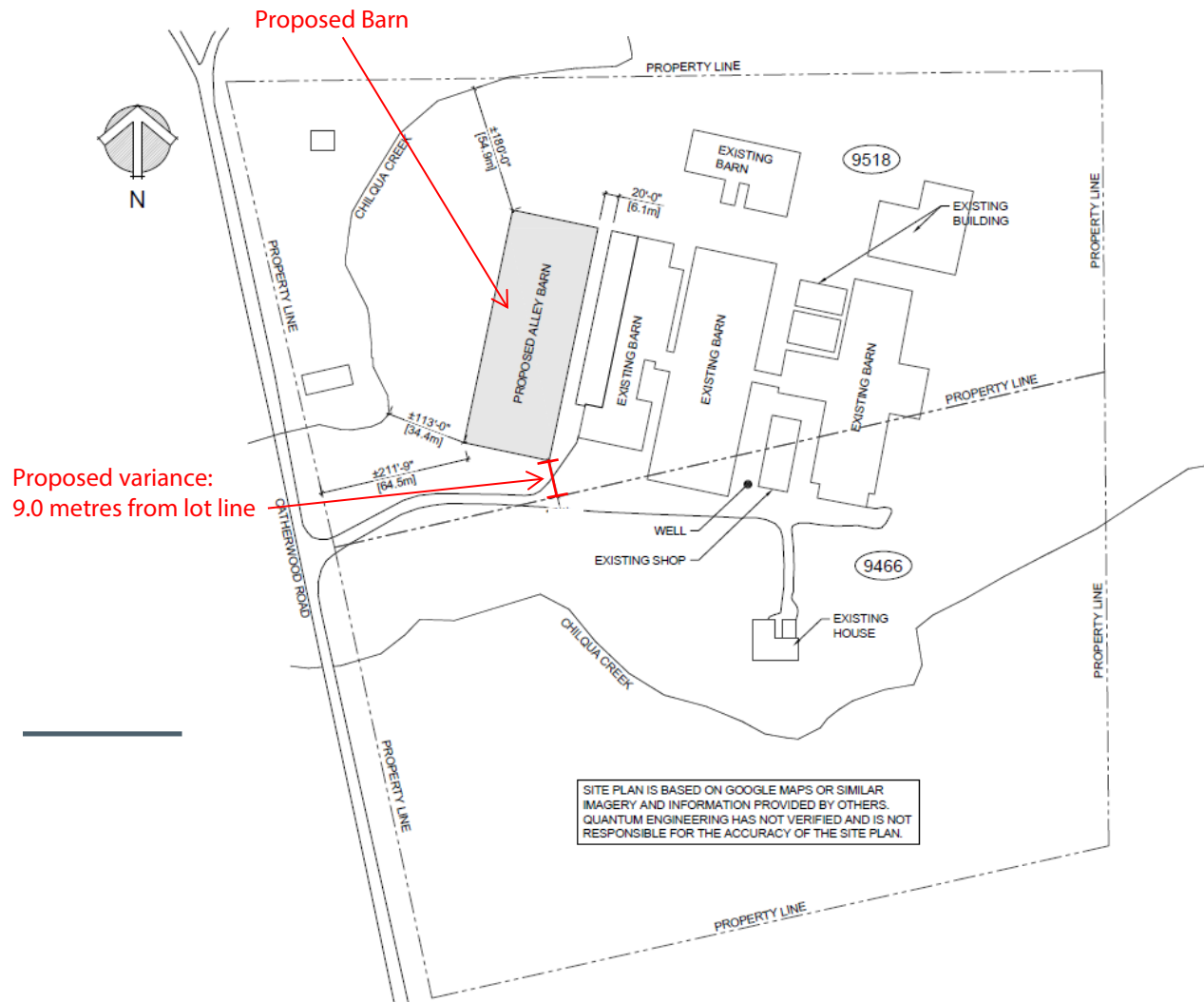


DEVELOPMENT VARIANCE PERMIT 2018-33

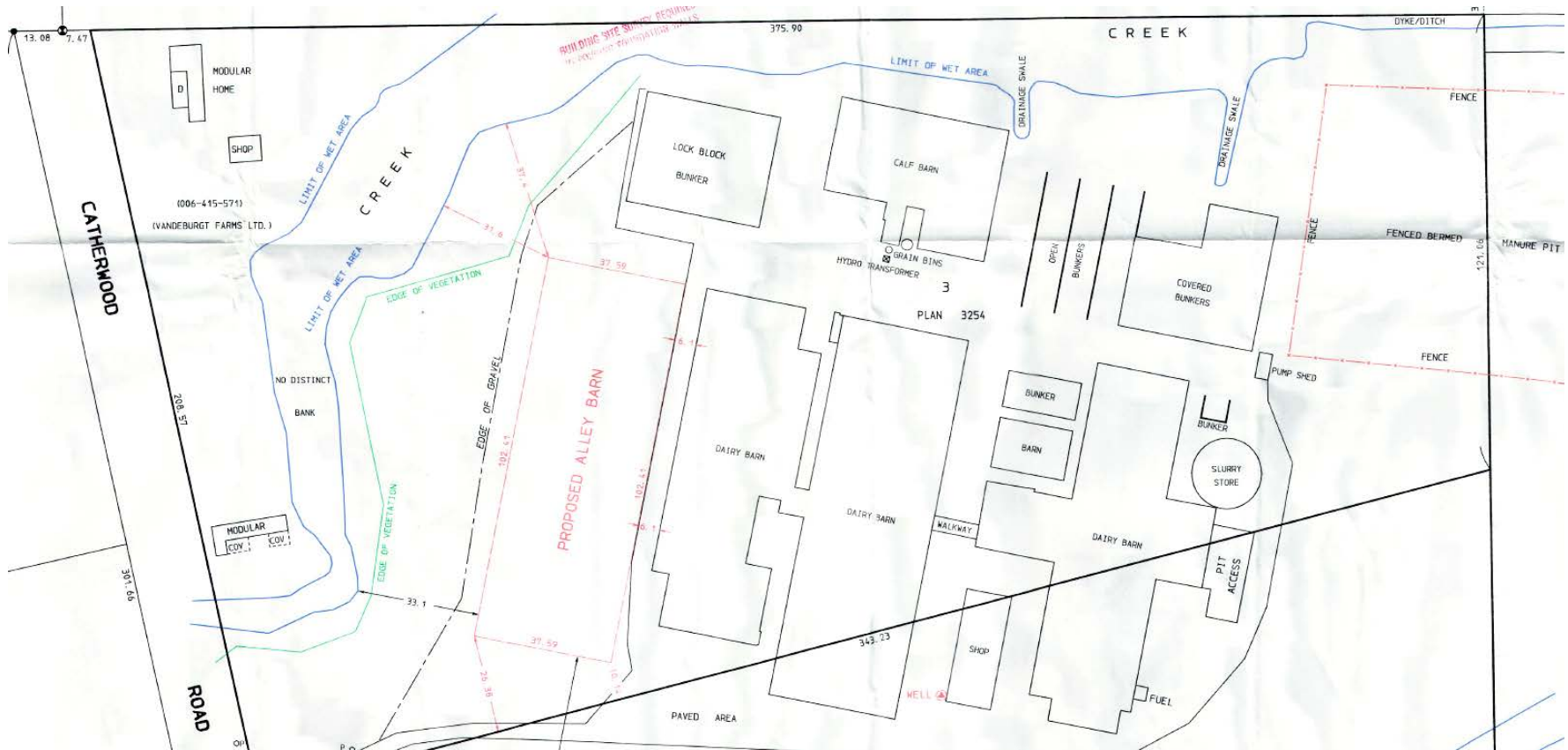
SCHEDULE "B"

Site Plan

Site Plan I



Site Plan II (with surveyed distances)



To: CAO for the Electoral Area Services Committee

Date: 2018-12-11

From: Louise Hinton, Bylaw Compliance & Enforcement Officer

File No: 4300-70-2019-

01

Subject: Special Event – REVEL Race Chilliwack Marathon & Half Event, Chilliwack River Valley (Area E)

RECOMMENDATION

THAT the Fraser Valley Regional District Board approve the Class III Special Event Licence No. 2019-01 for the REVEL Race Series Chilliwack Marathon & Half Event to be held on August 17, 2019, subject to the receipt of all required documentation necessary to complete the application;

AND THAT the Fraser Valley Regional District Board waive the requirement for a security fee;

AND FURTHER THAT the Fraser Valley Regional District Board authorizes its signatories to execute all legal instruments associated with the Special Event Licence No. 2018-01.

STRATEGIC AREA(S) OF FOCUS

Foster a Strong & Diverse Economy
Support Healthy & Sustainable Community
Provide Responsive & Effective Public Services

PRIORITIES

Priority #4 Tourism
Priority #5 Outdoor Recreation

BACKGROUND

Brooksee, LLC is an endurance event provider who is requesting the Regional District's conditional approval for their Special Event the REVEL Series Chilliwack Marathon & Half Event on Saturday August 17, 2019, partially in the Chilliwack River Valley. This large event is a Boston Marathon qualifier event that expected to draw over 2000 participants, volunteers, and even more supporters. The Regional District's *Special Events Bylaw No. 0111, 1997* requires that all Events of more than 200 people require a special events permit issued by the Regional District.

DISCUSSION

The REVEL Marathon & Half Race is scheduled for Saturday August 17, 2019. An application has been received on behalf of the host of the event, Brooksee, LLC . The applicant must still submit the following items remaining items for the application to be considered complete:

1. Insurance document
2. Ministry of Transportation Approval (MOTI)
3. British Columbia Provincial Parks Approval
4. Approval from the Chilliwack RCMP (Police)
5. Approvals for Emergency Services / Fire Protection
 - a. FVRD Electoral Area Emergency Services
 - b. Chilliwack River Valley Fire Department
 - c. Chilliwack Fire Department
6. Copy of City of Chilliwack Special Event Permit

The applicant must submit the remaining items no later than 30 days prior to the event. The Special Event Licence (Appendix "B") provides that preliminary approval may be given as per s. 11 of the Bylaw subject to receipt of the remaining items.

Approximately 2000 participants are expected to attend the event, plus 300 local volunteers. As such, the event is classified as a Class III Special Event per s.6 of the Bylaw:

"Class III Special Event" means a SE having an attendance of 1000 or more people or any SE the RD expects will have an attendance of 1000 or more people.

The REVEL Series Chilliwack Marathon race partially in the Chilliwack River Valley includes both full Marathon and Half Marathon race routes. The full race route will begin from the entrance area of Chilliwack Provincial Park at the Chilliwack Lake Forest Service Road travelling westbound 19.63 kilometers (12.2 miles) along Chilliwack Lake Road. Participants will then enter the City of Chilliwack and move through the Vedder Road Round-a-bout, finishing their race within the City of Chilliwack at GW Graham Secondary School (see Route Map - Appendix A). The majority of the event is single lane foot race along Chilliwack Lake Road, in Electoral Area E. The Regional District roadways are overseen by the Ministry of Transportation and Infrastructure (MOTI), who are supportive and involved with the planning of this event. Approvals are also required from Provincial Parks, the RCMP, and local emergency services. Preliminary approval has already been granted by the City of Chilliwack.

All participants in the race will be shuttled on buses from within two private third-party designated parking areas on Caen Avenue in the City of Chilliwack to the event starting line at the entrance of

Chilliwack Lake Provincial Park. The applicant has provided us with a very detailed operations plan for your reference (See attachments).

The Electoral Area E Director Orion Engar has identified the importance of traffic control along Chilliwack Lake Road to address the volume and speed of vehicles to ensure the safety of the participants.

The traffic control will be provided for the duration of the event at the sole cost to the applicant; it has been tailored to reduce the possibility of traffic congestion on Chilliwack Lake Road (see the passing lane map in Appendix A, and the attached traffic plan submitted by the applicant).

- The Eastbound traffic flow will be predominantly open (because most traffic at this time of day will be heading eastbound).
- There will be 3 Passing Zones (please see the map below for locations). Each Passing Zone will have three narrower “lanes” delineated by pylons for each of the following: Lane 1) Runners, 2) Westbound Traffic, 3) Eastbound Traffic.
- Westbound traffic will que up at each Passing Zone
- Once it is determined that the westbound vehicles should be released, the eastbound lanes will close temporarily to allow the westbound traffic to travel to the next Passing Zone (this will function like a rolling closure).

As roadways within the Regional District are the jurisdiction of MOTI, all final approvals of traffic plans will be completed through the Ministry of Transportation permitting process.

There will a total of 14 aid stations located approximately every two miles along the entire race route, beginning near mile 3 of the full marathon route. Aid stations will be located on large shoulders and or turnoff points adjacent to the runner lane, so as to not obstruct the highway. These aid stations will provide an opportunity for racers to refuel and rehydrate throughout their run. Three of the Aid stations (Aid stations D, H & K on the attached Map) will be attended by trained medical personnel, who will have on hand medical supplies, first aid kits, medical cots, AED systems and other advanced full life support / lifesaving equipment.

There will be several portable restrooms set up at each aid station along the route, as well as the start and finish lines. They will be delivered the day before the race and be removed immediately following the race. Total numbers will be determined by the supplier based on the number of participants, estimated to be 5 – 8 at each station and 30 -40 at each the start and finish lines. There will be an abundant number of refuse containers a both starting lines, each aid station, and at multiple locations at the finish venue.

The race expects to have about 300 local volunteers aid the event. Most of the Volunteers will be recruited from charitable organization or school groups who will receive a monetary donation in exchange for their volunteer efforts. In addition, the organizer would like to pick 1-5 community

partners that they can contribute to, whether that is communities along the course, volunteer firefighters, parks, schools, towns etc.

The organizers have a communication plan for residents and businesses directly affected in the weeks leading up to the event with mailed out correspondence explaining traffic control plans, delays and other issues related to the event as well as full contact information. They have also requested to partner with the local Chamber of Commerce in Chilliwack to ensure that businesses know what to expect and provide opportunities to gain financial benefits from the event. Please see the attached REVEL Series Partnership document attached for further details on economic and tourism related benefits for the area.

As Per *Bylaw No. 0111*, a security of \$60,000 may be required from the applicant at the discretion of the Fraser Valley Regional Board. This event itself is being held primarily on Ministry of Transportation Roads and no Regional District Lands are being used. In addition the applicant is very experienced in organizing similar races in different locations all over the United States. Staff recommends waiving the requirement for a security fee from the applicant.

COST

There organizer is expected to fund costs for the entire event including notification and traffic control; there are no direct costs to the Fraser Valley Regional District.

The applicant has paid the \$800 Class III Special Event Licence fee.

CONCLUSION

Staff recommends preliminary approval of Special Event Licence No. 2019-01 subject to the receipt of all required documentation necessary to complete the application.

COMMENTS BY:

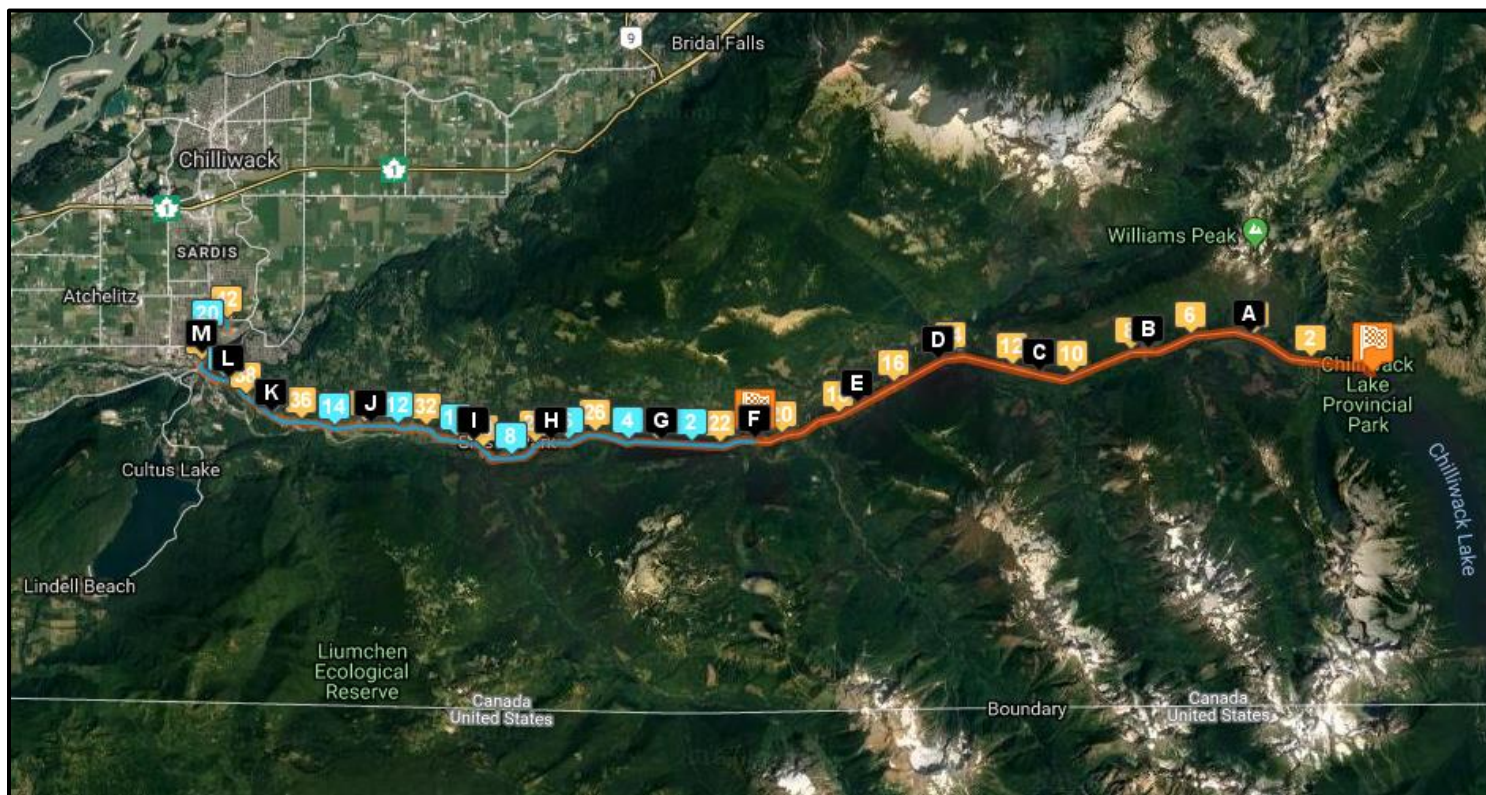
Margaret Thornton, Director of Planning & Development: Reviewed and supported.

Mike Veenbaas, Director of Financial Services: No further financial comments.

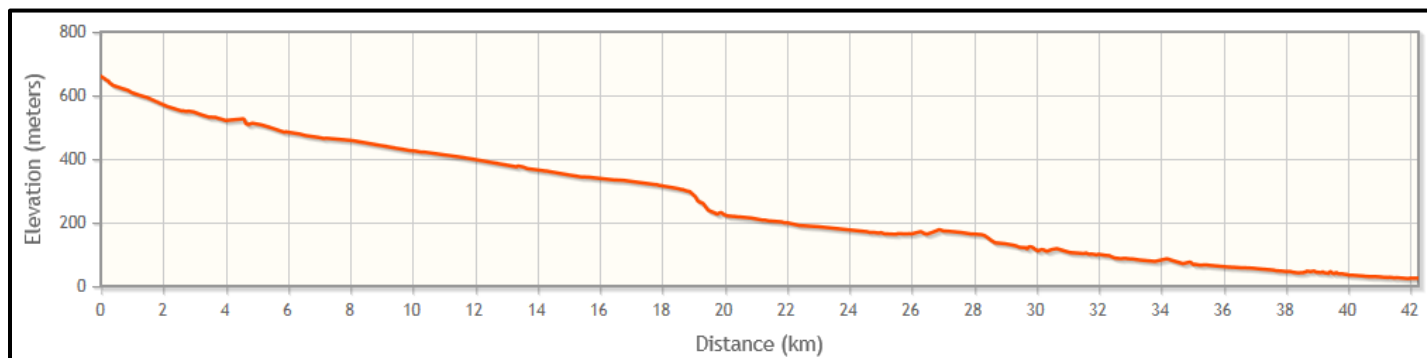
Paul Gipps, Chief Administrative Officer: Reviewed and supported

Appendix "A

Marathon Race Route Map



ELEVATION MAP



PASSING LANE MAP



Schedule "B"

Special Events Bylaw No. 0111, 1997

**A bylaw to provide for the regulation of "special events"
in all electoral areas of the Fraser Valley Regional District**

SPECIAL EVENT LICENCE

License Number:	2019-01
Date Issued:	TBA
Promoter:	Brooksee LLC
Location of Event:	Chilliwack River Valley / Sardis Areas Chilliwack Provincial Park, Chilliwack Lake Road & the City of Chilliwack
Property Owner(s) with Civic Address:	Description of Land:
None.	None.
Nature of Special Event:	REVEL Race Series Chilliwack Marathon & Half Event
Date of Special Event:	Saturday August 17, 2019
Hours of Event:	6:00 am —4:00 pm
Maximum Number of Persons Permitted:	2000 —3000 participants 300 volunteers

Jason Lum
FVRD Board Chair

Paul Gipps
Chief Administrative Officer

Schedule "A"

Special Events Bylaw No. 0111, 1997
A bylaw to provide for the regulation of "special events"
in all electoral areas of the Fraser Valley Regional District

APPLICATION FOR SPECIAL EVENT LICENCE

Application No.: _____ Date of Application: 10/29/18

Owner: Brooksee, LLC / Brooksee Foundation

Mailing Address: 254 S. 700 W. Pleasant Grove, UT 84062

Business Phone: Same Residence Phone: 801-867-8062

Promoter (if different from owner): Cydney Westgate (Point of Contact)

Mailing Address: 3301 N. 63rd St. Scottsdale, AZ 85251

Business Phone: 801-867-8062 Residence Phone: _____

Legal Description of Land(s) to be used for Special Event: Chilliwack Lake Rd to Vedder

Rd. Vedder to Promontory. Promontory to Thomas. Used for running
of Roadways only.

Street Address of Land(s): _____

Just Roadway, No addresses.

Date of Special Event: Aug 17, 2019

Hours of Operation: 6:00 am to 12:30 pm

Anticipated number of participants per day: 2000

Is liquor to be available: ☐ Yes ☒ No

Brief description of Event: Marathon and Half marathon ~~at~~ that runs
on Chilliwack lake rd, finishing at GW Graham School

Are special structures to be installed: ☐ Yes ☒ No

If so, briefly describe: _____



45950 Cheam Avenue
Chilliwack, BC V2P 1N6
604-702-5000 | 1-800-528-0061

Receipt

For Office Use Only

Do not write in the space below

Fraser Valley Regional District

Receipt: 7237/1 Oct 31, 2018
Dated: Oct 31, 2018 10:00:25 AM
Station: EA SERVICE/CASH2
1 OTHER LIC/PERM REVEL MARATHON 800.00
Total 800.00
VISA CYDNEY WESTGATE -800.00

Date

Received from

Description of Payment and GL Code

Oct 31/18
Cydney Westgate

VISA

Revel Chalk Marathon
Application Fee

GST #89221 4750 RT0001

White - Cashier | Yellow - Department | Pink - Customer

FRASER VALLEY REGIONAL
DISTRT.
#1-45950 CHEAM AVENUE
CHILLIWACK BC

CARD *****2087
CARD TYPE VISA
DATE 2018/10/31
TIME 2209 10:00:05
RECEIPT NUMBER
M84125508-001-374-001-0

PURCHASE
TOTAL

\$800.00

APPROVED

AUTH# 00171G
THANK YOU

01-027

CARDHOLDER WILL PAY
CARD ISSUER ABOVE AMOUNT
PURSUANT TO CARDHOLDER
AGREEMENT.

CARDHOLDER COPY

IMPORTANT - RETAIN THIS
COPY FOR YOUR RECORDS



2019 REVEL Chilliwack Comprehensive Operations Plan

Last updated: 9/30/2018

This document outlines the traffic control, safety, communication, and medical plan for the REVEL Chilliwack Marathon & Half, to be held on Saturday, Aug 17th, 2019. Brooksee's principal concern is the safety of our participants and of the public. As an organization we wish to stress that we will take all necessary steps in order to ensure a safe event for all affected stakeholders.

Parking & Busing

All participants will park at an offsite, third party private lot that will not require any special traffic control. Uniformed event staff members will be present to direct parking and ensure that safe conditions are maintained in the parking lots. We anticipate that participants will begin to arrive in the parking lot shortly before 3:00 AM.

Participants will be loaded onto buses in the parking lots. Buses will be leaving from 3:30 AM to 5:00 AM to ensure that runners get to the starting lines before the 6:00 AM start time. Participants will not be allowed to park or be dropped off at the start venues.

Once participants finish the race, they will board shuttle buses at GW Graham Middle Secondary School and be shuttled back to their vehicles at the parking area.

Course Routes

The course routes may be seen online at <https://www.runrevel.com/gmap/1318131>. The Red line represents the full marathon route. The green line represents the half marathon route. The black/white letter boxes represent aid stations. Each aid station may be clicked on to ascertain exact GPS coordinates.

The half marathon will start at 6:00 AM on Chilliwack Lake Rd. Participants will be staged on the South side of Chilliwack Lake Rd. The runners will run West on Chilliwack Lake Rd for 12.2 miles. They will turn right (North) to run on Vedder Rd. They will turn right (East) on Promontory Rd. then make a final right on Thomas Rd to finish at GW Graham Middle Secondary School.

The full marathon will also start at 6:00 AM approximately .25 mile East of the Lindeman Lake Parking Lot on Chilliwack Lake Rd. Full marathon participants will be staged on the North side of Chilliwack Lake Rd. The course starts by running Westbound on Chilliwack Lake Rd. The runners will run West on Chilliwack Lake Rd for 25.2 miles. They will turn right (North) to run on Vedder Rd. They will turn right (East) on Promontory Rd. then make a final right on Thomas Rd to finish at GW Graham Middle Secondary School.

Once the full marathon course reaches the half marathon starting point, the two courses follow the same route to the finish venue.

General Traffic Control Along Race Course

Brooksee will engage a traffic control company to oversee the creation of engineered traffic control plans as well as event-day logistics. General traffic control plans for the race course are outlined below:

- **Half Marathon Start Line:** Buses will leave the parking lots from 4:00-5:00 AM and proceed up Chilliwack Lake Rd. A race staff member will be present at that location and will direct the half marathon buses. After dropping participants off at the staging area, the staff member will direct the buses to turn around using Borden Creek Forest Service Rd. The buses will then head back down Chilliwack Lake Rd. to the Finish staging area. Staff members will be present to direct the flow of bus traffic and ensure safe conditions for participants. Runners will not be allowed to park or be dropped off at the start venue. Ten minutes prior to the start of the race (5:50 AM), participants will enter Chilliwack Lake Rd. to the start line. See Exhibit B for Half Marathon start area.
- **Full Marathon Start Line:** Buses will leave the parking lots from 3:30-4:30 AM and proceed up Chilliwack Lake Rd to .25 miles East of the Lindeman Lake Parking Lot. Buses will turn into the Chilliwack Lake Provincial Park entrance, turn around , and allow participants safely off the bus onto the Chilliwack Lake Forest Service Road. Buses will then head West, down Chilliwack Lake Road to the finish line area. Staff members will be present to direct the flow of bus traffic. Participants will not be allowed to park or be dropped off at the start venue. See Exhibit C. Ten minutes prior to the start of the race (5:50 AM), participants will line up at the start line waiting for the race to begin.
- **Police Escort/Traffic Control Plan:**

Chilliwack Lake Road (to Slesse Road)

This is a 19 -mile stretch of road between Chilliwack Lake Provincial Park and Slesse Road. The Westbound lane will be closed and reserved for runners. No vehicles will be able to drive in the Westbound lane until all runners are through this stretch. A line of cones will be placed on the center line. The Eastbound lane will be open to Local Traffic only. Traffic control Personnel (TCP) will be posted at entry points to assist local/visiting traffic and keep them from runner's path.

***PLEASE NOTE that this plan will only need to be in place from 6:00 AM until 10:45 AM. All runners are required to maintain a minimum pace, and the slowest runner will have passed Slesse Road by 10:45 AM.

Chilliwack Lake Road (Slesse Road to Vedder Rd.)

Approximately a 5.5 mile stretch from Slesse Road to Vedder Road.

The race would occupy the entire Westbound lane. Cones will be placed on the center line to separate runners from the Eastbound lane. Traffic will flow East and Westbound in this lane with a Pilot car

system. TCP will be staged at Vedder Rd and Slesse Road to hold traffic as needed. This will be a predominantly open eastbound flow, with minor brief interruptions for the clearing of westbound traffic. We will establish three separate passing zones along Chilliwack Lake Rd, with each zone being slightly less than one kilometer in length. Zone 1 begins at the Vedder Bridge and stretches east for 0.80 kilometers to the end of the Vedder Fishing Spot parking turnout. Zone 2 begins at the west end of Edwards Rd and stretches east for 0.77 kilometers. Zone 2 begins 0.82 kilometers west of Slesse Rd and stretches east to Slesse Rd. See map for passing zones. <https://www.runrevel.com/rcw/gmap/1318164>

***PLEASE NOTE: The pilot car operation will be in effect from 6:15 AM to 12:15 PM. Their staging points will be Vedder Road and Slesse Road. The slowest runner will be through the pilot car stretch by 12:15 PM.

Vedder Rd

Approximately a 1-mile stretch.

As runners turn from Chilliwack Lake Rd to Vedder, they will be moved into the shoulder of the road until they pass the round about where the road widens.

Runners will occupy the Northbound shoulder and lane encroachment allowing for 12ft of runner path. Cones will be placed 12 ft from the paved edge for runners. A second line of cones will be placed 12 feet from the 1st line of cones creating a North and Southbound lane shift.

Runners will be in the marathon section from 7:00 AM to 12:15 PM

Promontory Rd

This is approximately a .28 mile stretch. Marathon runners will turn right (East) on Promontory Rd. Runners will occupy the Eastbound shoulder and lane encroachment allowing for 12ft of runner path. Cones will be placed 12 ft from the paved edge for runners. A second line of cones will be placed 12 feet from the 1st line of cones creating an East and Westbound lane shift. At Vedder Elementary School, the road narrows. When the road narrows the runners will be moved to the shoulder only until Thomas Road

Runners will be in this section from 7:08 AM to 12:25 PM

Thomas Rd

Runners will occupy the Southbound shoulder and lane encroachment allowing for 12ft of runner path. Cones will be placed 12 ft from the paved edge for runners. A second line of cones will be placed 12 feet from the 1st line of cones creating a North and Southbound lane shift.

Runners will be in this section from 7:10 AM to 12:30 PM

Resident & Business Notification

In the weeks leading up to the event, all residents and businesses located in the surrounding areas will receive an EDDM (Every Door Direct Mailer) postcard in the mail. This mailer explains all traffic control plans, delays, and other issues in relation to the event. It also lists our contact information and invites the public to reach out with questions or concerns.

In addition, we plan to partner with the local Chambers of Commerce to ensure that all businesses know what impacts to expect on race day and give them an opportunity to get financial benefits from the event.

Participant Medical Plan

Aid stations will be established approximately every two miles along the entire race route, beginning near mile 3 of the full marathon. See Exhibit E for a sample aid station layout. Aid stations will be located on large shoulders and/or turnoff points adjacent to the runner lane so as to not obstruct the highway.

The locations of the 14 aid stations will be as follows:

- Aid Station A: (49.1066892988, -121.50730458999999)
- Aid Station B: (49.1020986595, -121.55147583400003)
- Aid Station C: (49.0954154422, -121.598649222)
- Aid Station D: (49.0992043147, -121.64256362200001)
- Aid Station E: (49.0864100848, -121.67739813599997)
- Aid Station F: (49.0761267676, -121.72203787299998)
- Aid Station G: (49.0757258657, -121.76272675500002)
- Aid Station H: (49.0757256588, -121.81088935899999)
- Aid Station I: (49.0754874832, -121.84457741699998)
- Aid Station J: (49.0806489765, -121.88908873100002)
- Aid Station K: (49.0839329214, -121.93256839000003)
- Aid Station L: (49.0934886732, -121.95084846700001)
- Aid Station M: (49.100944136, -121.96247690799999)

Volunteers manning each aid station will be carpooling to the area in 2-3 vehicles, and we have selected locations that allow for adequate room for them to park on the shoulders and/or pullouts next to the aid stations.

Each aid station, consisting of multiple portable tables and chairs, will be manned by several event staff. Staff members, who will be identified by matching event shirts, will ensure that runners are able to get proper nutrition and hydration when needed. All aid stations will be supplied with adequate water and Gatorade. These fluids will be delivered the day before the race in 1-gallon jugs. The morning of the race, volunteers will pour the water and Gatorade into 5-gallon plastic coolers. The fluids will then be dispensed into 8-ounce waxed paper cups to be distributed to runners as they pass the aid stations.

Select aid stations will be supplied with other amenities such as energy bars and gels. In planning supplies for nutrition and hydration, we will plan our quantities based on the maximum possible intake per runner, and then add a contingency surplus to ensure that the risk dehydration and exhaustion is minimized. In addition to aid stations along the route, water tables will also be set up at each starting line.

Each aid station along the route will be equipped with first aid kits. Event staff will be instructed concerning the use of these first aid kits. In addition, select aid stations (Aid Stations D, H, & K) will be accompanied by medical aid stations. Medical aid stations will be staffed by trained medical personnel, who will be capable of assisting participants with serious issues and/or emergencies. Medical cots and extensive supplies will be on hand.

In case of extreme cold weather, participants will be supplied with gloves and heating blankets to be used at the starting venues and during the race if desired. If at any point a participant is incapable of continuing down the course, they may elect to be picked up by the rear sag wagon and escorted down the route.

A large medical area will be established at the finish venue, adjacent to the finish line. This medical area will be staffed by several EMTs and other medical staff. They will be equipped with all necessary medical supplies including emergency supplies. In addition, an ALS ambulance will be on hand at the finish venue and will have unrestricted access to outside roads if it becomes necessary to transport any participants.

In addition to the ambulance stationed at the finish venue, two more ALS ambulances will be stationed along the route. Both of these will constantly roam the route.

Communications Plan

A command post will be established at the finish venue to ensure that pertinent race information can be shared at all times with race staff and local authorities. Brooksee invites any and all law enforcement and government agencies related to the event to station a staff member at the command post.

Race staff will be using cell phones for communication during the event. Every aid station along the course will be equipped with a communication device so that pertinent information may be relayed to command. A communications list will be printed and distributed to each staff member; this list will identify the communication person that will be stationed at each aid station as well as at those fulfilling other roles during the event.

All event-related EMS vehicles stationed along the route will also be equipped with communication devices (radios or cell phones depending on their location).

Sanitation Plan

Portable restrooms will be set up in conjunction with each aid station along the route (every two miles) as well as at both starting lines and the finish venue. They will be delivered the day before the race and removed immediately following the race. Restroom quantities in all cases will be determined based upon usage estimates from the supplying company, which will always adhere to health code requirements, plus a safety surplus. Final numbers will not be determined until race management gains a solid estimate of how many participants will compete in the race. However, it is anticipated that each aid station will have roughly five to eight, and each start line will have roughly thirty to forty.

Abundant trash bins will be located at both starting lines, each aid station, and at multiple locations at the finish venue. Each location will be equipped with several extra industrial trash bags per bin. Event staff will be present at each aid station, the finish line, and both starting lines to ensure that trash bins remain accessible and that trash bags are changed when necessary.

Immediately following the start of the event, hired clean-up truck crews will begin to remove all trash and other items (including aid station tables and supplies and course signage) from the race route. Trash will be removed entirely from the route and taken to the finish venue, where roll-away dumpsters will be filled and hauled to the local landfill. Our aim is to leave no trace whatsoever of our event. Trash from each aid station will be loaded directly into the clean-up trucks along the route. Thus, no dumpsters will be necessary at the start venues nor along the course.

Insurance

Brooksee shall obtain a \$5,000,000 insurance policy which covers every participant and volunteer associated with this event through the Henry Ham Insurance Agency in Denver CO.

In accordance with City of Chilliwack Highway Works Application and Permit: The applicant and its subcontractors shall maintain, in effect, commercial liability insurance of not less than \$5,000,000.00 per occurrence naming the City of Chilliwack as an additional insured and in a policy form acceptable to the City and automobile liability insurance of not less than \$2,000,000.00 for all owned and leased vehicles.

Race Day Schedule

FRIDAY 8/16/19

- **8:00 AM:** Race staff begins to set up finish venue.
- **10:00 AM:** Race staff begins drop-off of aid station supplies along entire route. Portable restrooms begin to be delivered along entire route.

SATURDAY 8/17/19

- **2:00 AM:** Traffic control will set up all necessary cones, barricades, and markers along route.
- **3:00 AM:** Participants begin to park at designated parking lots.
- **3:30-5:00 AM:** Participants load buses at parking lots and are transported to start lines.
- **4:30-5:30 AM:** Participants unload at staging areas and begin race preparation.
- **6:00 AM:** Both races begin.
- **6:15 AM:** Cleanup truck crews begin to move down the route, removing all aid station materials, course signage, and trash.
- **7:10 AM:** First participants finish race.
- **12:30 PM:** Final participants finish race
- **12:30 PM:** Finish venue cleanup begins.
- **1:30 PM:** Cleanup truck crew finishes cleaning route.
- **4:00 PM:** Staff leaves finish venue with all equipment.

Contact Information

Race Directors:

Anna Ryan: 720-467-2188

Alec Fowler – 801-369-1475

Cydney Westgate: 801-867-8062

Exhibit A: Proposed Parking

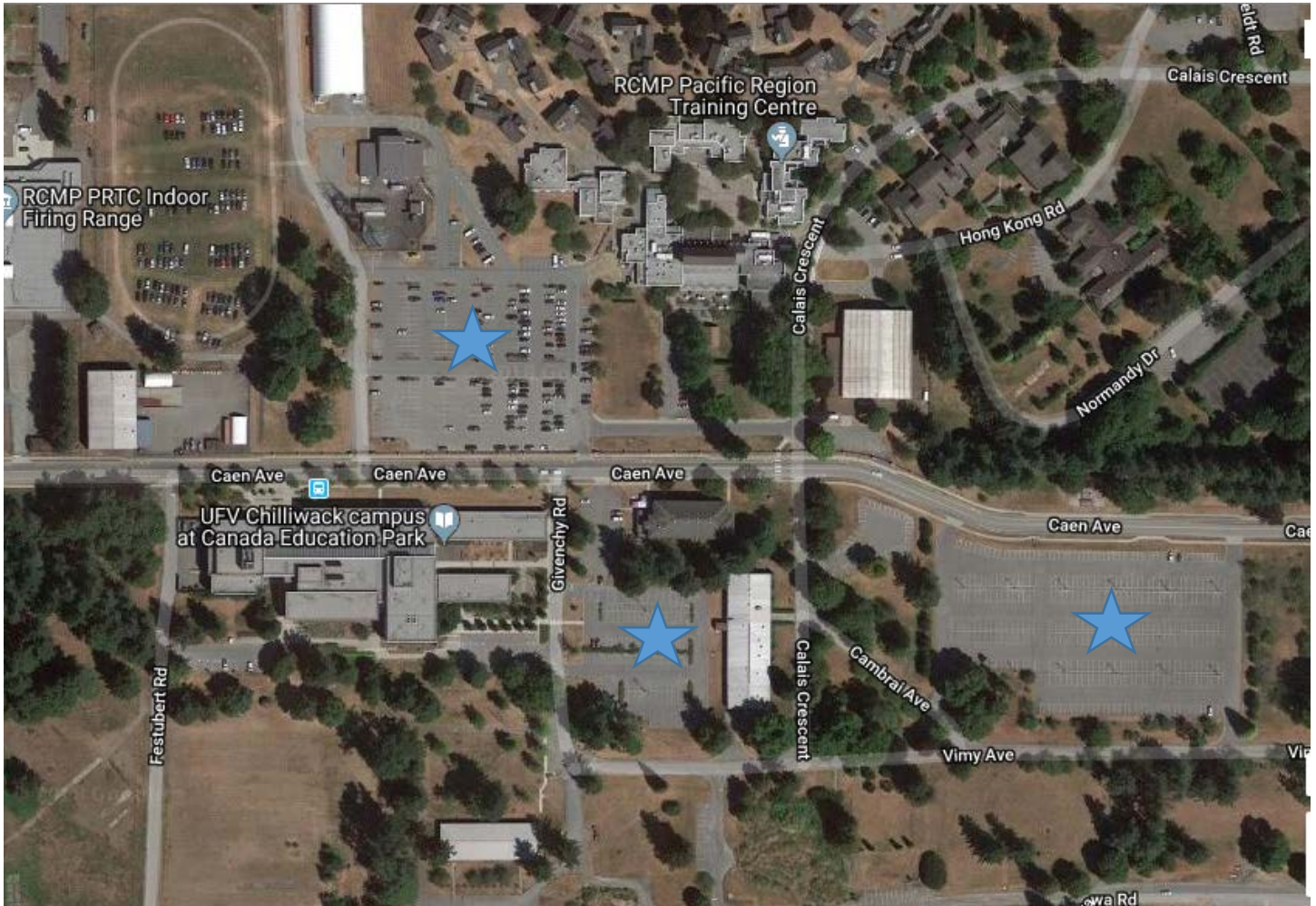
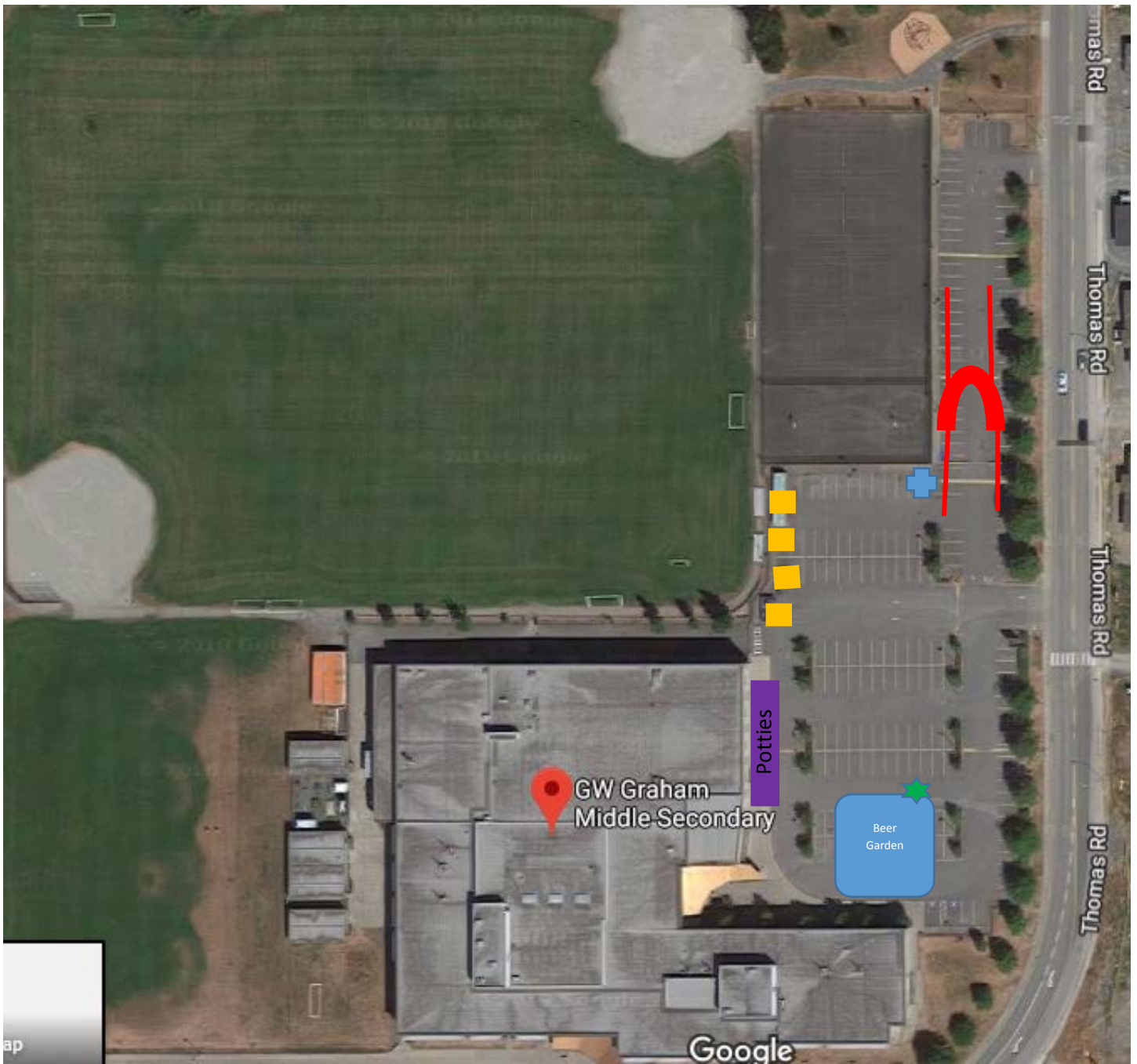


Exhibit A Continued: Finish Venue Layout



Vendor & Sponsor Booths

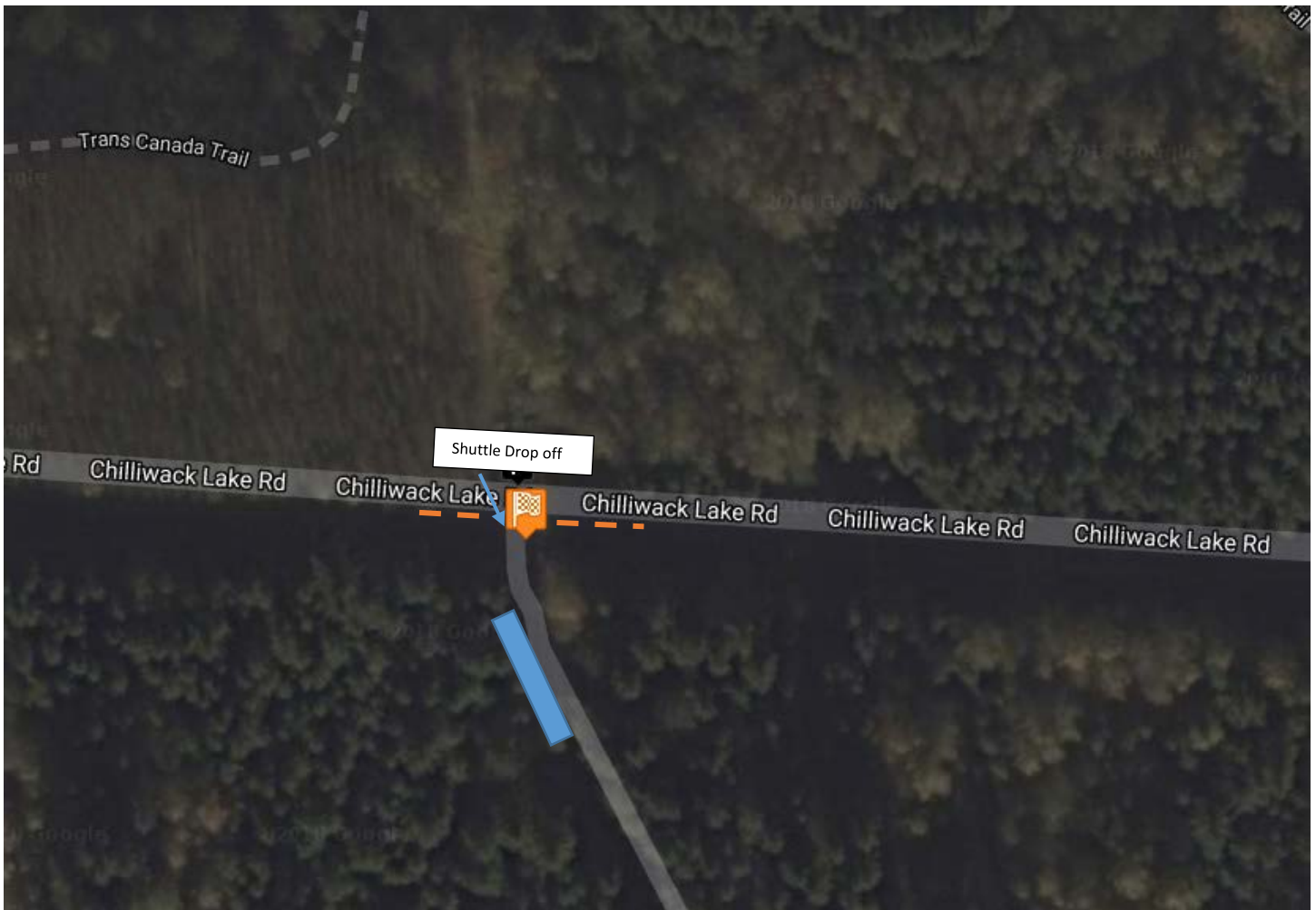


Security



Medical Tent

Exhibit B: Half Marathon Start Area



----- Runners will be located on the park's side road until the race begins. Cones will be placed in the roadway for the lane closure. Runners will enter roadway, prior to race start.

 Toilets for participants


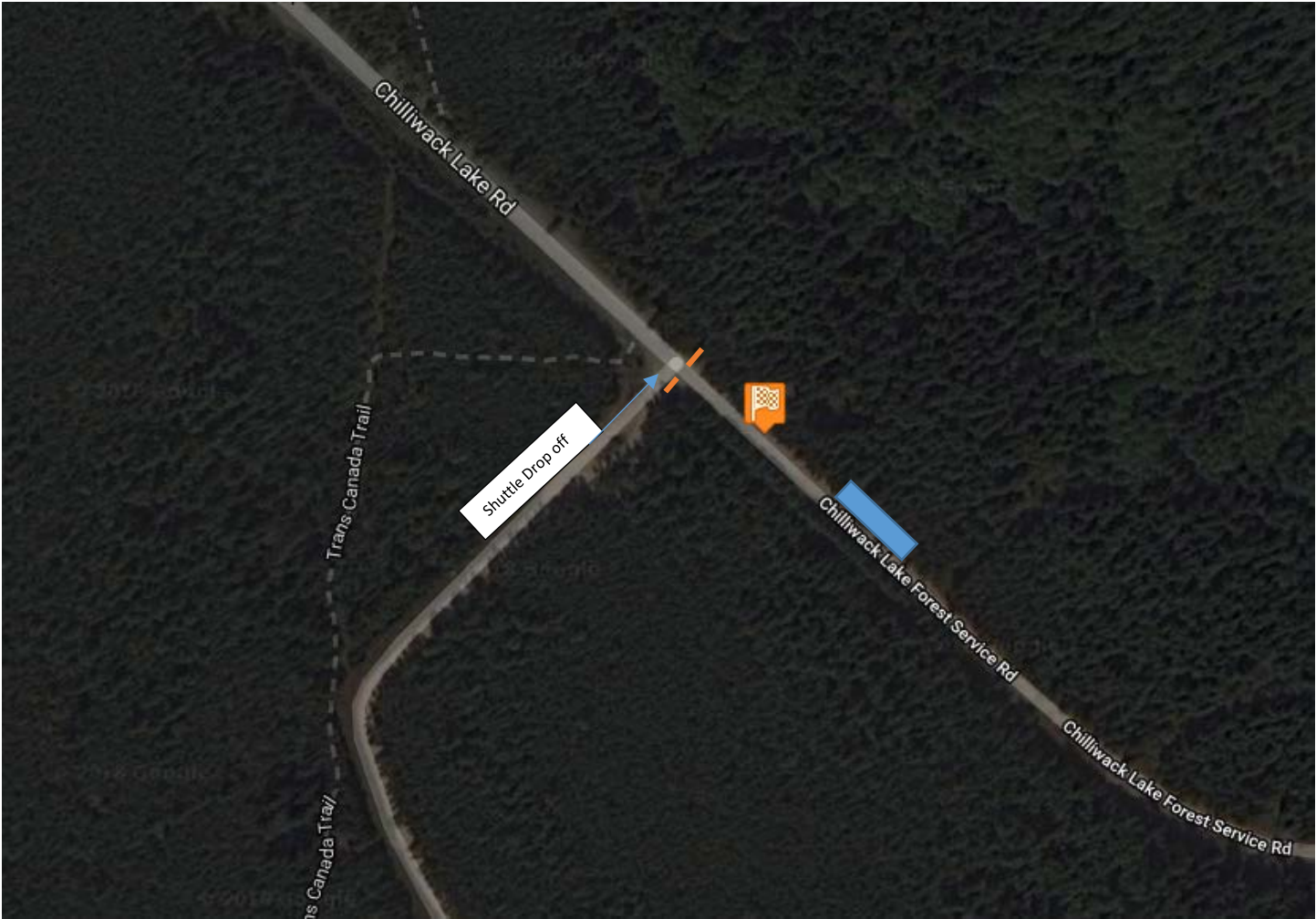
 Participant path

Exhibit C: Full Marathon Start Area



--- Runners will be located on Chilliwack Lake Forest Service Road until the race begins. Cones will be placed in the roadway for the lane closure. Runners will enter roadway, inside the cones prior to race start.

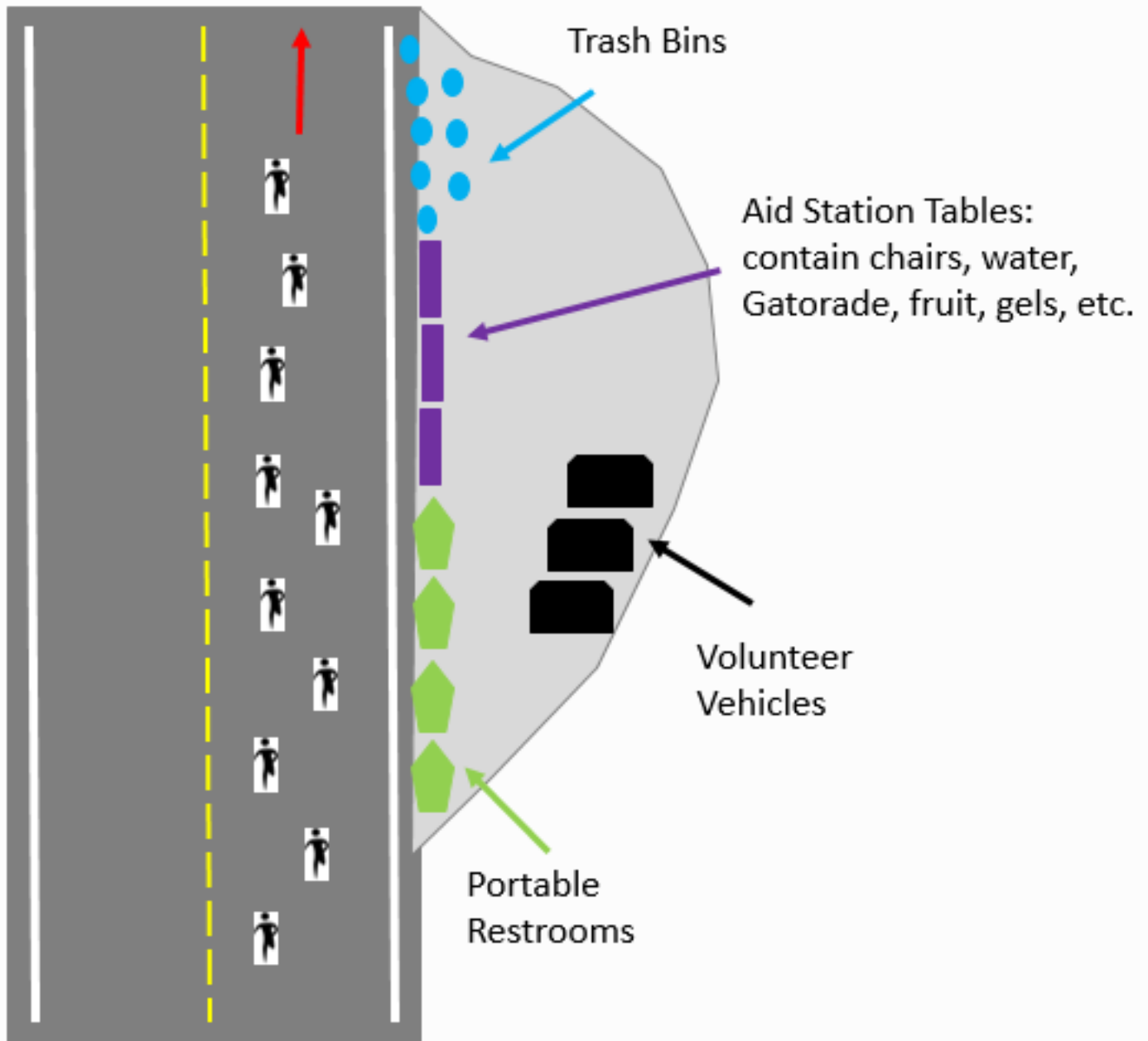
■ Toilets for participants

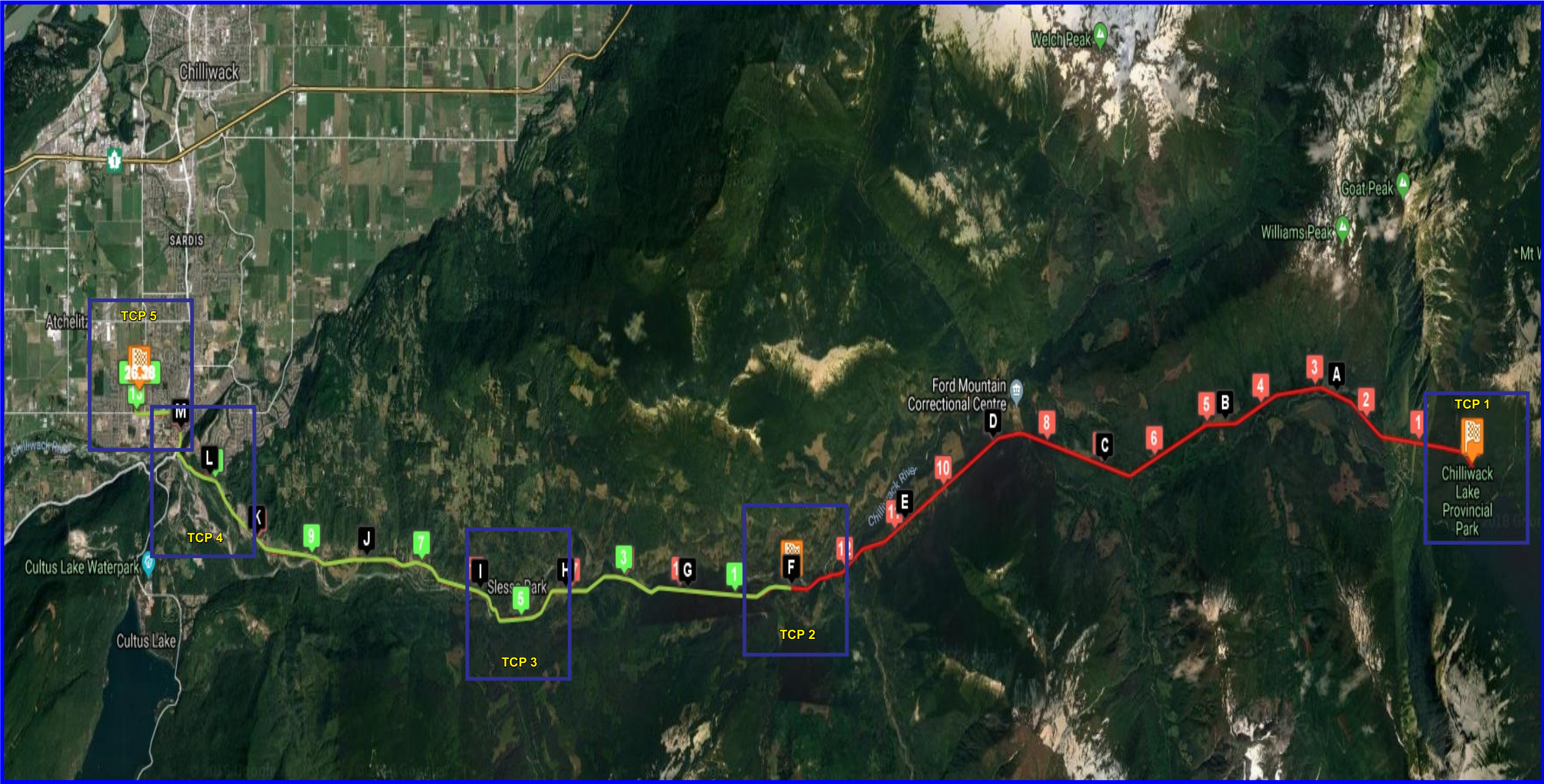
→ Participant Path

Exhibit D: Race Timetable at Specified Locations

Marathon Mile	Landmark	First Runner Arrives	Last Runner Passes
1		6:05 AM	6:15 AM
2		6:11 AM	6:30 AM
3		6:16 AM	6:45 AM
4	Centre Creek Forest Service Rd.	6:22 AM	7:00 AM
5		6:27 AM	7:15 AM
6	Riverside Campground	6:33 AM	7:30 AM
7		6:38 AM	7:45 AM
8		6:44 AM	8:00 AM
9		6:49 AM	8:15 AM
10		6:55 AM	8:30 AM
11		7:00 AM	8:45 AM
12		7:05 AM	9:00 AM
13		6:00 AM	9:15 AM
14		6:05 AM	9:30 AM
15		6:11 AM	9:45 AM
16		6:16 AM	10:00 AM
17	Tamihi Liumchen Rd	6:22 AM	10:15 AM
18		6:27 AM	10:30 AM
19	Bourne Rd	6:33 AM	10:45 AM
20		6:38 AM	11:00 AM
21		6:44 AM	11:15 AM
22	Edwards Rd	6:49 AM	11:30 PM
23		6:55 AM	11:45 PM
24		7:00 AM	12:00 PM
25	Alma Ave	7:06 AM	12:15 PM
26	Thomas Rd	7:11 AM	12:30 PM

Exhibit E: Example Aid Station Layout





TRAFFIC CONTROL PLAN DATE OF LAST REVISION 2018-08-15 Streetwise TRAFFIC CONTROLLERS LTD TRAFFIC PLAN	Contractor Name:	TCP #	Location:
	Revel Race Series	Overview	Chilliwack Lake to Watson Glen Park
	Job Description:	Dates:	
	Half & Full Marathon	August 17th, 2019	
	Manual for Work on Roadways	Traffic Control Figure Number	
2015 Interim Edition	Contractor Contact:	Phone:	Email:
	Cydney Westgate	801-867-8062	cydney@brooksee.com
	Traffic Plan Contact:	Phone:	Email:
	Genny Scott	778-860-7247	genny@streetwisetraffic.ca

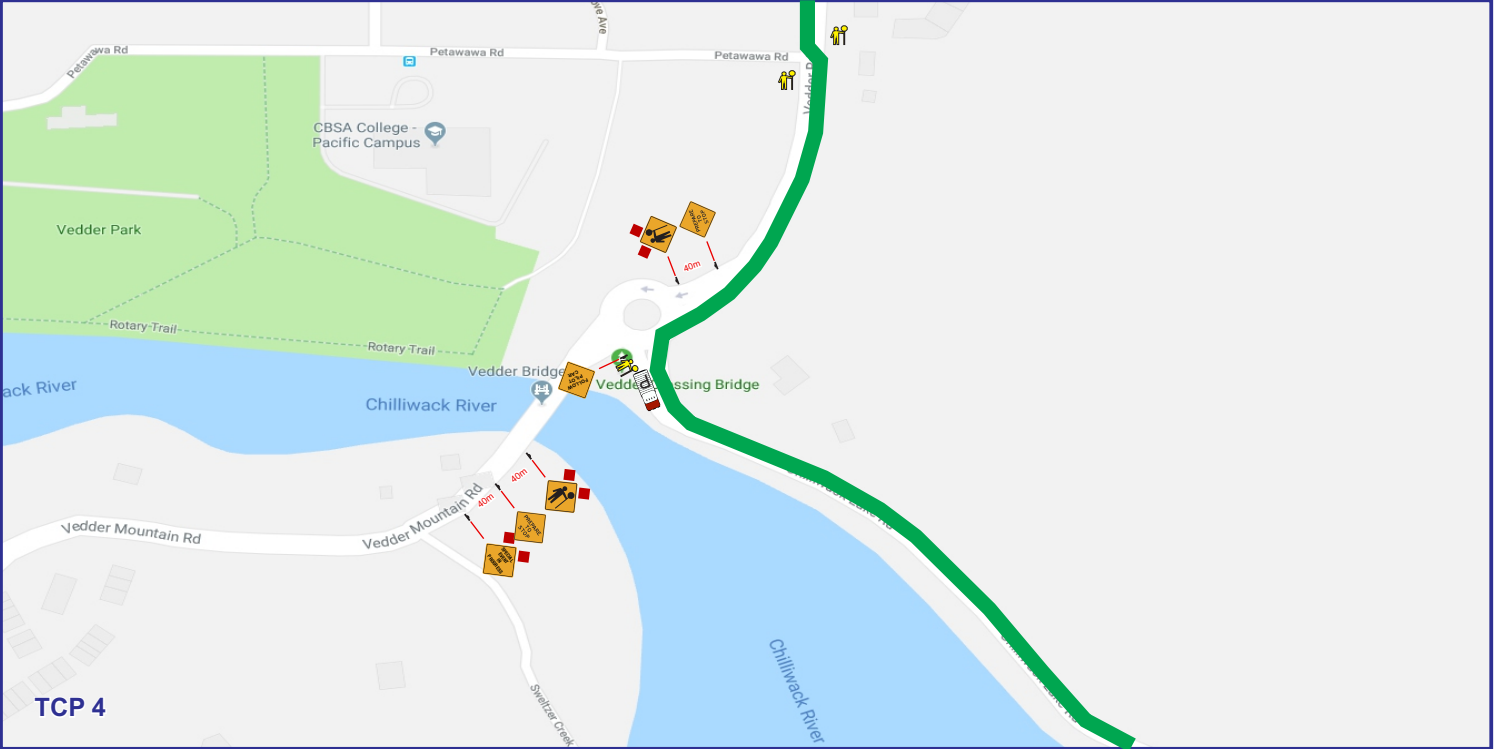
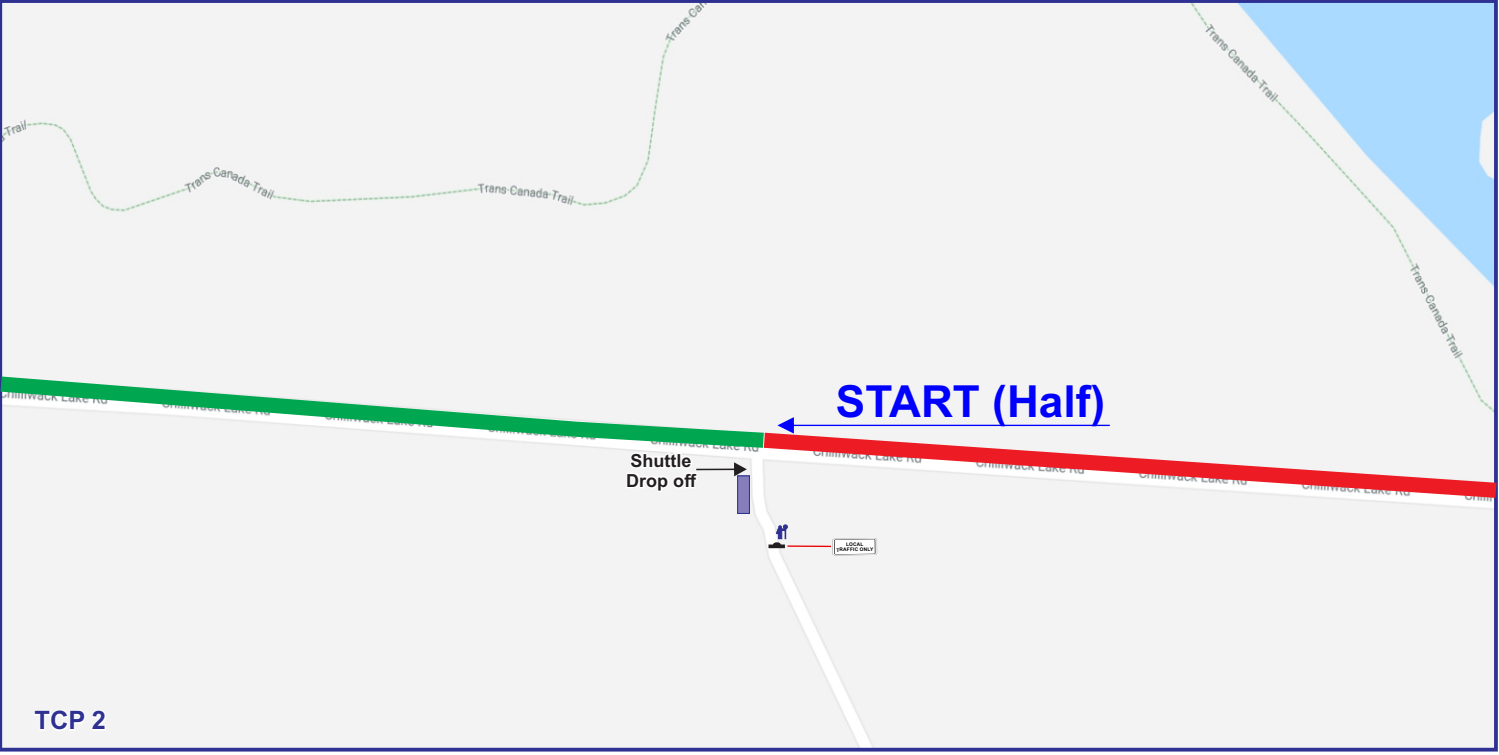
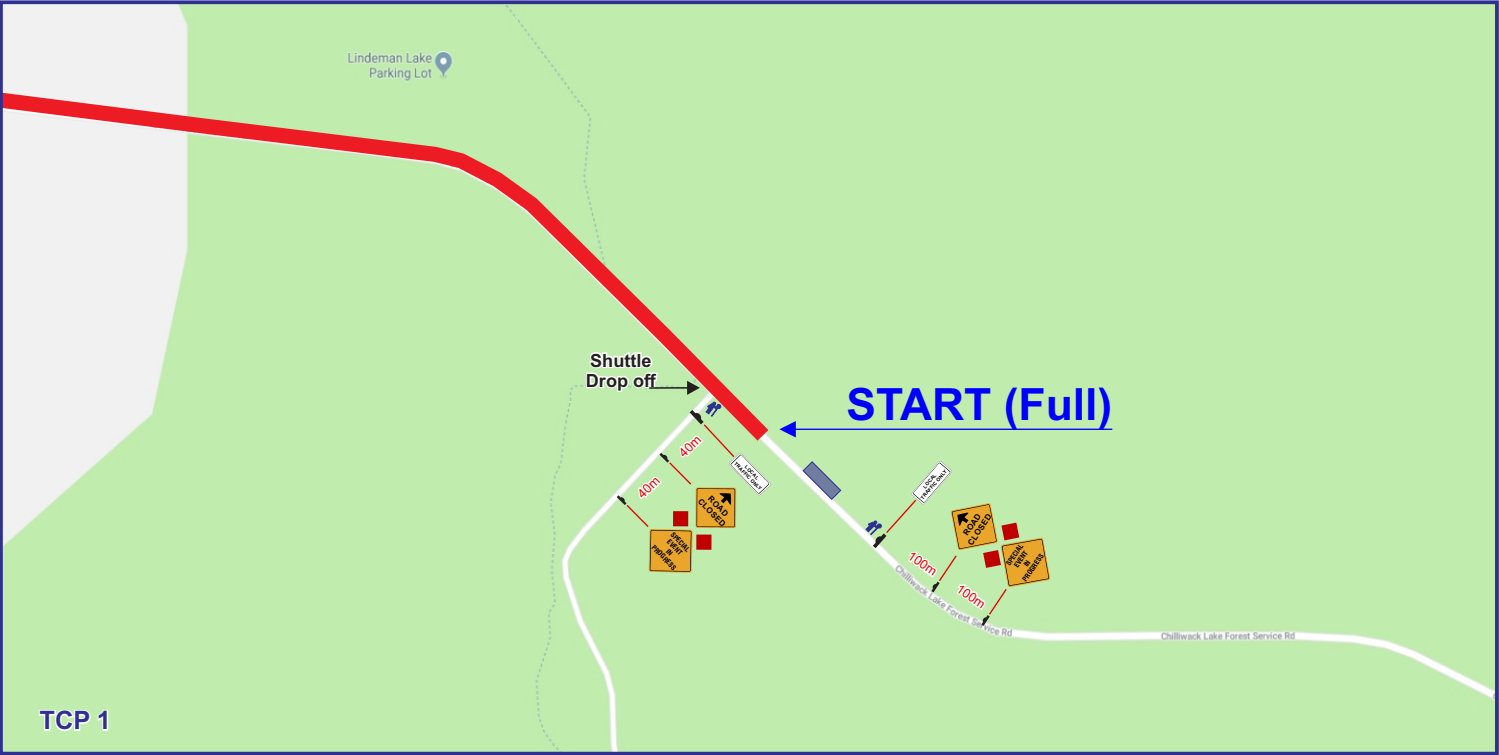
LEGEND		
	TRAFFIC CONTROL PERSON	SIGN FLAGS
	OFFICER	TUBULAR MARKER - TYPE D
	SIGN STAND (TRIPOD)	PILOT VEHICLE
	SIGN STAND (WINDMASTER)	FLASHING ARROW BOARD (FAB)
	FULL MARATHON	TOILETS FOR PARTICIPANTS
	HALF MARATHON	EVENT PARKING

DRAWING SPECIFIC NOTES

- Chwk Lake Rd (Lindeman Lake Pkg Lot to Slesse Rd) - Local Traffic Only - **6:00 AM to 10:45 AM**;
- Chwk Lake Rd (Slesse Rd to Vedder Rd) - Pilot Car Operation - **6:15 AM to 12:15 PM**;
- Vedder Rd (Chwk Lake Rd to Keith Wilson Rd - Encroachment - **7:00 AM to 12:15 PM**;
- Keith Wilson Rd (Vedder Rd to Cowicham Pl) - Encroachment - **7:10 AM to 12:30 PM**;
- Keith Wilson Rd (Cowicham Pl to Watson Glen Park) - SLAT - **7:10 AM to 12:30 PM**.

GENERAL NOTES

- All traffic control shall conform to the MOTI Traffic Management Manual for Work on Roadways 2015
- Signs shown are representations only and the MOTI Catalogue of Standard Traffic Signs should be used for detailed sign design
- Dimensions shown are in meters and are the minimums except as otherwise indicated
- All permanent signage that will conflict with this site will be covered or removed while the works are in effect
- Active Work Zones and Hazards shall be delineated to protect workers and the travelling public
- Maximum distance between cone/delineator/barrel should be 10m
- Tubular markers and signs will be double based and well secured during windy conditions
- **Distances may be adjusted due to urban block length**
- These pages are best printed on a Tabloid (11x17) page size



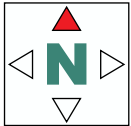
TRAFFIC CONTROL PLAN
DATE OF LAST REVISION
2018-08-15

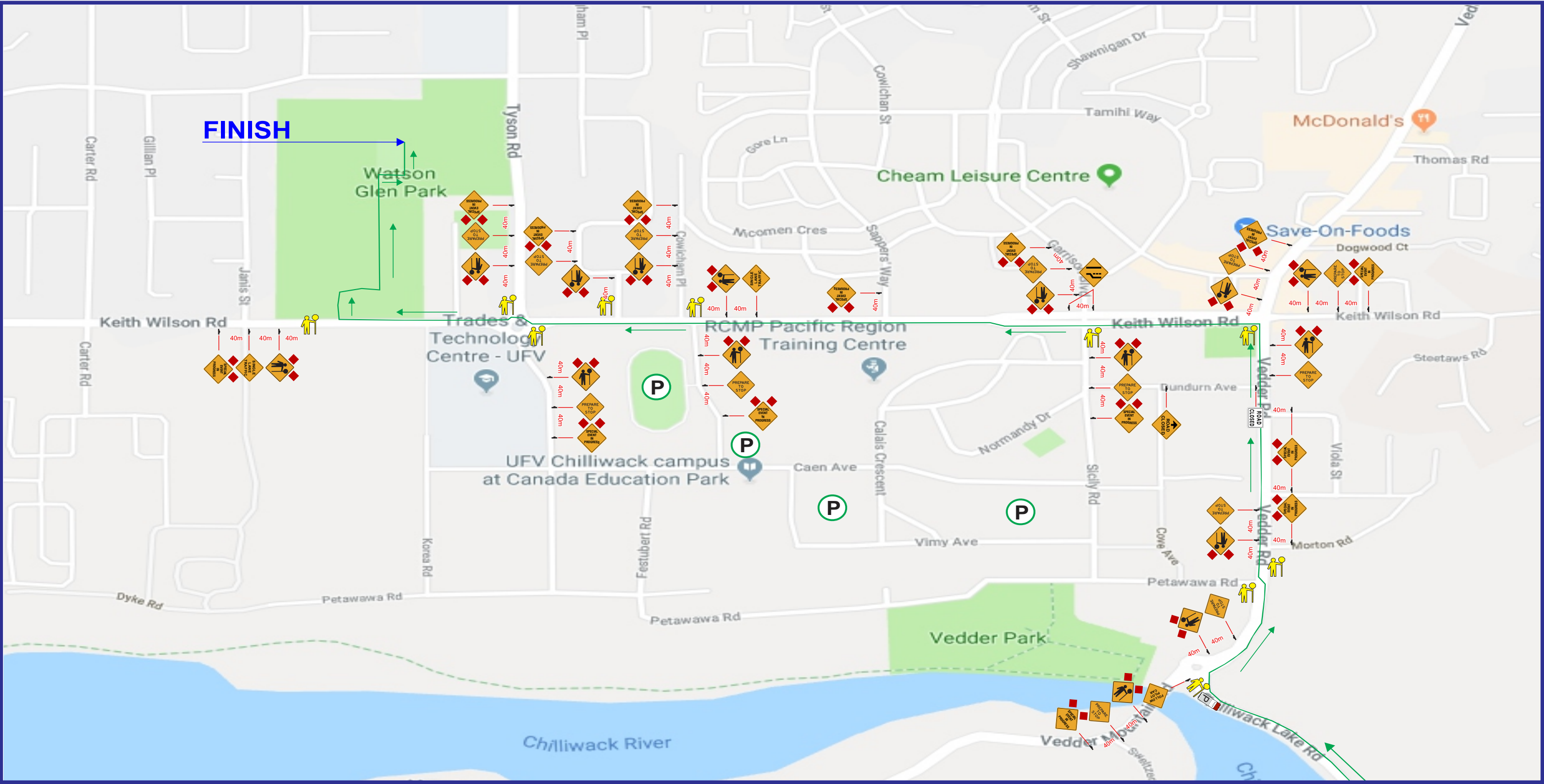


Contractor Name:	TCP #	Location:
Revel Race Series	TCP 1-4	Chilliwack Lake to Watson Glen Park
Job Description:	Dates:	
Half & Full Marathon	August 17th, 2019	
Manual for Work on Roadways	Traffic Control Figure Number	
2015 Interim Edition		
Contractor Contact:	Phone:	Email:
Cydney Westgate	801-867-8062	cydney@brooksee.com
Traffic Plan Contact:	Phone:	Email:
Genny Scott	778-860-7247	genny@streetwisetraffic.ca

LEGEND	
	TRAFFIC CONTROL PERSON
	OFFICER
	SIGN STAND (TRIPOD)
	SIGN STAND (WINDMASTER)
	FULL MARATHON
	HALF MARATHON
	SIGN FLAGS
	TUBULAR MARKER - TYPE D
	PILOT VEHICLE
	FLASHING ARROW BOARD (FAB)
	TOILETS FOR PARTICIPANTS
	EVENT PARKING

- DRAWING SPECIFIC NOTES**
- Chwk Lake Rd (Lindeman Lake Pkg Lot to Slesse Rd) - Local Traffic Only - 6:00 AM to 10:45 AM;
 - Chwk Lake Rd (Lindeman Lake Pkg Lot to Slesse Rd) - WB lane will be closed & reserved for runners;
 - Chwk Lake Rd (Slesse Rd to Vedder Rd) - Pilot Car Operation - 6:15 AM to 12:15 PM;
 - Tubular Markers (Type D) will be placed along centre line;
 - Officers will be posted at entry points to assist local/visiting traffic & keep them away from runner's path.
- GENERAL NOTES**
- All traffic control shall conform to the MOTI Traffic Management Manual for Work on Roadways 2015
 - Signs shown are representations only and the MOTI Catalogue of Standard Traffic Signs should be used for detailed sign design
 - Dimensions shown are in meters and are the minimums except as otherwise indicated
 - All permanent signage that will conflict with this site will be covered or removed while the works are in effect
 - Active Work Zones and Hazards shall be delineated to protect workers and the travelling public
 - Maximum distance between cone/delineator/barrel should be 10m
 - Tubular markers and signs will be double based and well secured during windy conditions
 - Distances may be adjusted due to urban block length
 - These pages are best printed on a Tabloid (11x17) page size





TRAFFIC CONTROL PLAN DATE OF LAST REVISION 2018-08-15 Streetwise <small>TRAFFIC CONTROLLERS LTD</small> TRAFFIC PLAN	Contractor Name:	TCP #	Location:
	Revel Race Series	TCP 5	Chilliwack Lake to Watson Glen Park
	Job Description:		Dates:
	Half & Full Marathon		August 17th, 2019
	Manual for Work on Roadways		Traffic Control Figure Number
2015 Interim Edition	Contractor Contact:	Phone:	Email:
	Cydney Westgate	801-867-8062	cydney@brooksee.com
	Traffic Plan Contact:	Phone:	Email:
	Genny Scott	778-860-7247	genny@streetwisetraffic.ca

TRAFFIC CONTROL PERSON

OFFICER

SIGN STAND (TRIPOD)

SIGN STAND (WINDMASTER)

FULL MARATHON

HALF MARATHON

SIGN FLAGS

TUBULAR MARKER - TYPE D

PILOT VEHICLE

FLASHING ARROW BOARD (FAB)

TOILETS FOR PARTICIPANTS

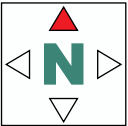
EVENT PARKING

DRAWING SPECIFIC NOTES

- Vedder Rd (Chwk Lake Rd to Keith Wilson Rd) - Encroachment - 7:00 AM to 12:15 PM;
- Keith Wilson Rd (Vedder Rd to Cowichan Pl) - Encroachment - 7:10 AM to 12:30 PM;
- Keith Wilson Rd (Cowichan Pl to Watson Glen Park) - SLAT - 7:10 AM to 12:30 PM;
- Tubular Markers (Type D) will be placed along the road to separate the runners from the traffic.

GENERAL NOTES

- All traffic control shall conform to the MOTI Traffic Management Manual for Work on Roadways 2015
- Signs shown are representations only and the MOTI Catalogue of Standard Traffic Signs should be used for detailed sign design
- Dimensions shown are in meters and are the minimums except as otherwise indicated
- All permanent signage that will conflict with this site will be covered or removed while the works are in effect
- Active Work Zones and Hazards shall be delineated to protect workers and the travelling public
- Maximum distance between cone/delineator/barrel should be 10m
- Tubular markers and signs will be double based and well secured during windy conditions
- Distances may be adjusted due to urban block length
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REVEL

Race Series

An Enduring Partnership

REVEL HAS GAINED NATIONAL RECOGNITION

We create high-quality endurance events. Our participants rave about their truly unforgettable experiences.

A successful event, however, must also create value for all stakeholders, including communities, municipalities, government and law enforcement agencies, businesses, community groups, and residents. By working closely with these groups, we create events that our stakeholders and communities rave about as well.

ECONOMIC IMPACT

An increasing number of cities are recognizing the magnitude of the economic impact endurance events have on local businesses. Many cities are now inviting event companies to operate in their communities in an effort to boost the local economy.

Benefits & Opportunities for Local Businesses

- **Access to marketing opportunities**
Including social media, print advertising, email marketing
- **Brand promotion**
- **Direct business**
Hotels, restaurants, retail
- **Product placement**
- **Other exclusive Sponsor Benefits**



Traveling Participant Spending

Hotel	\$500
Restaurants/Food	\$150
Retail Shopping	\$100
Car Rental/ Transportation	\$90
Race Gear	\$50
Tourism/ Entertainment	\$30

Average Spending Total: \$920



COMMUNITY BRANDING

Large-scale endurance events such as those organized by REVEL are seen as “destination events.” Thus, our events offer a unique opportunity for our host communities to brand themselves to our large out-of-state contingencies. We go to great lengths to promote our hosts on our website and social media outlets, print media, physical signage, electronic mailers, etc. Our events help put communities “on the map.”

“REVEL has acted in accordance with our city ordinances while being cooperative and understanding. We appreciate their willingness to anticipate problems and correct them. They are honest in their communications and competent as event managers. Their event has been a positive experience for our city.”

—Kelvin H Cullimore, Jr.
Mayor of Cottonwood Heights, UT

We aim to involve civic and community leaders whenever possible in our events. We frequently invite mayors, city council members, and other community leaders to fire the starting pistols and hand out awards to top finishers during our awards ceremonies. Our goal is to give as much visibility to our hosts as possible so that visitors associate a quality event with a quality community. 456



“REVEL filled our hotel to capacity, in addition to several other local hotels. We are extremely satisfied with the business and goodwill we received from our partnership and give them our highest recommendation.”

—Dave DeYoung
General Manager-Local Hotel

REVEL events generate millions of dollars of revenue in each host community. With thousands of participants from all across the globe, we bring significant business to local hotels, restaurants, athletic retail stores, and tourist attractions. We work closely with the Chambers of Commerce in our host communities to identify ways to bring as much business as possible to the area.

Average Age

37 yrs old

Oldest **78** Youngest **10**

Annual Income

73.3% of runners have a household income of more than \$75,000, well over the national average.

\$75,000+

Gender

61%

FEMALE

39%

MALE

67%

College Graduates

Compared to only 30.4%
US national average

457

HEALTH & FITNESS

Multiple studies have confirmed that fitness events in communities provide a host of health and fitness benefits, including:

Physical Health Benefits

REDUCED

- Obesity
- Chronic disease
- Heart disease
- Diabetes
- Cancer
- Osteoporosis

INCREASED

- Life expectancy
- Immune system

Mental Health Benefits

REDUCED

- Depression
- Anxiety
- Extreme Stress
- Eating Disorders

INCREASED

- Quality of life
- Self-esteem
- Life satisfaction
- Personal growth

Societal Health Benefits

- Significantly reduced cost of healthcare
- Increase in volunteerism
- Promotion of stewardship
- Strengthening of communities, families, and civic groups
- Reduction of crime
- Decreased drug and alcohol abuse
- Increased economic productivity

REVEL partners with local departments of recreation and fitness programs. We support all existing community health programs and create many of our own. We aim to align our efforts with those of the community to promote exercise, nutrition, and valuable recreational activities. The presence of REVEL events generates an image of health and fitness in host communities.





CHARITABLE GIVING

REVEL truly appreciates the willingness of host communities to open their doors to our events. As we have gracious hosts, we aim to be gracious guests. That is why, in connection with each of our events, we donate a portion of each participant's entry fee to local nonprofit groups that tend to have environmental, educational, and/or health-related causes. We welcome the input of local leaders concerning which nonprofit groups would be the best beneficiaries of our partnership.

"Our experience with REVEL has been incredibly positive. We promote a healthy and sustainable community, and REVEL has helped by donating thousands of dollars. We wholeheartedly endorse their events and recommend them to any interested party."

—Barbara Cameron
President, Big Cottonwood Community Council

In addition to the direct financial support we offer these nonprofit groups, we also provide many other benefits to them such as providing volunteers for their activities, advertising their causes on our website and social media outlets, and educating our participants and the public about issues they are involved with. It is our way of giving back to the communities that we partner with.



PARTNER WITH US

REVEL events create win-win situations. Our participants enjoy the beautiful course routes, the charm of our host cities, and the electric atmosphere of our event festivities. At the same time, our host communities receive a boost to their local economies and charities, unprecedented exposure to visitors, and a healthier public. We look forward to partnering with your community to create another unforgettable event.

To: CAO for the Electoral Area Services Committee

Date: 2018-12-11

From: Barry Penner, Electoral Area Special Projects

Subject: Grant Application to Northern Development Initiative Trust

RECOMMENDATION

THAT the Fraser Valley Regional District Board authorize an application to Northern Development Initiative Trust for a grant of up to \$15,000 (75%) and up to \$5,000 (25%) from the Electoral Area Services toward the cost of completing a Connectivity Infrastructure Strategy for improving internet and cell phone service in the Electoral Areas of the FVRD;

AND THAT the Fraser Valley Regional District Board authorize staff to engage Research ICT Solutions to assist in seeking the grant.

STRATEGIC AREA(S) OF FOCUS

Provide Responsive & Effective Public Services

Foster a Strong & Diverse Economy

BACKGROUND

Not all areas within the Fraser Valley Regional District are well served by high-speed internet and reliable cell phone coverage. The FVRD has repeatedly brought this to the attention of major service providers. Modest improvements have been made in the past 18 months, with Telus adding micro cell phone sites with very limited range in parts of Sunshine Valley, Lindell Beach & Columbia Valley.

There is still much room for improvement.

Major providers like Telus, Rogers and Freedom Mobile do not require external funding to justify an expansion of service where anticipated market demand indicates a likely rate of return on invested capital that meets internal corporate objectives. However, less populated and more remote areas often cannot meet this requirement.

For this reason, the BC Government (with financial support from the Federal Government) has established the \$16 million *Connecting British Columbia Program*. The funding is administered by Northern Development Initiative Trust (NDIT) on behalf of the BC Government. Its purpose is to help underserved communities identify service gaps and practical solutions, and then provide financial contributions toward the capital cost of infrastructure improvements to improve the projected rate of return on infrastructure additions.

NDIT requires that applications for capital contributions be supported by a "Connectivity Infrastructure Study". Like other local governments, the FVRD does not possess the technological capacity to prepare such a study on our own. NDIT understands this and has funding available to pay up to 75% (maximum contribution of \$15,000) of the cost of hiring a telecommunications consulting agency (pre-screened and pre-approved by NDIT) for this work. It is expected that the FVRD will provide the balance of the amount required by the consulting agency (eg. up to \$5,000 from the FVRD, if the total cost of preparing the Connectivity Infrastructure Study is \$20,000).

I have been in contact with Research ICT Solutions (who was referred to us by NDIT) and have received the attached proposal. They are willing to assist us in preparing both the application for the grant to pay for the Connectivity Infrastructure Study, as well as the application for the capital contribution for the desired infrastructure improvements.

DISCUSSION

At this time, the focus of the *Connecting British Columbia Program* is to expend high-speed internet service. I have made it clear to both NDIT and Research ICT Solutions that the FVRD is also keenly interested in improved cell phone service. It is possible both high speed internet and cell phone service will be addressed by an eventual grant for a capital contribution, but that remains to be seen.

Applications for the capital contribution must indicate that the requested projects will be completed by March 31, 2020.

COST

The FVRD's portion of the Connectivity Infrastructure Study is estimated to be not more than \$5,000.

CONCLUSION

This is a two-step process. The FVRD needs to complete a Connectivity Infrastructure Study before we can apply for the more significant funding to help pay for infrastructure upgrades and expansion.

COMMENTS BY:

Mike Veenbaas, Director of Financial Services

Reviewed and supported. There is sufficient funding with Budget 102 Electoral Area Administration to fund FVRD's 25% of the proposed study.

Paul Gipps, Chief Administrative Officer

Reviewed and supported

Research ICT Solutions

REGIONAL

/CONNECTIVITY

INFRASTRUCTURE

STRATEGY

DRAFT PROPOSAL FOR THE
FRASER VALLEY REGIONAL DISTRICT

ABOUT RESEARCH ICT SOLUTIONS

- For the last three years, we've been focused on articulating a new business model to profitably connect everyone within mobile coverage to the Internet. We've published multiple papers in peer reviewed journals on Universal Basic Internet and next generation business models.
- We were one of the finalists in the Mozilla Equal Rating Innovation Challenge, a competition to find the best way to provide access to all. Research ICT Solutions has experience in both analysing and rolling out last mile initiatives:
 - Currently working on a broadband rollout for the universal service arm of the Ugandan Communications Commission;
 - We've advised the World Bank on how to target an investment of \$150 million into the ICT sector in Zambia.
- For this project we have teamed up with Steve Song, who is an experienced consultant with twenty years of experience and who has developed Open Source, Open Hardware technology that enables anyone to set up their own telephone and Internet company called Village Telco ([http:// villagetelco.org](http://villagetelco.org)).

PROCESS

1. Apply for funding from Northern Development Trust for consulting services to develop a connectivity strategy
2. Once funding approved, complete the application for funding to develop Connectivity Infrastructure Strategy

OBJECTIVE

- Draft proposal for the Fraser Valley Regional District
- Develop a Connectivity Infrastructure Strategy that meets the requirements of the Connecting British Columbia Program - Phase 2
- The Strategy would have three components:
 1. Connectivity & technology assessment
 2. Governance structure and potential vendors
 3. Funding application

ASSUMPTIONS

	Median income after tax	Population	Average age	# of households
Census 2016	\$69,289	295,934	41	108,393

- Large but spread-out population means that a range of options needs to be investigated
- Collaboration with technology providers, other municipalities and provincial government is crucial

/BROADBAND EXPANSION PROBLEM

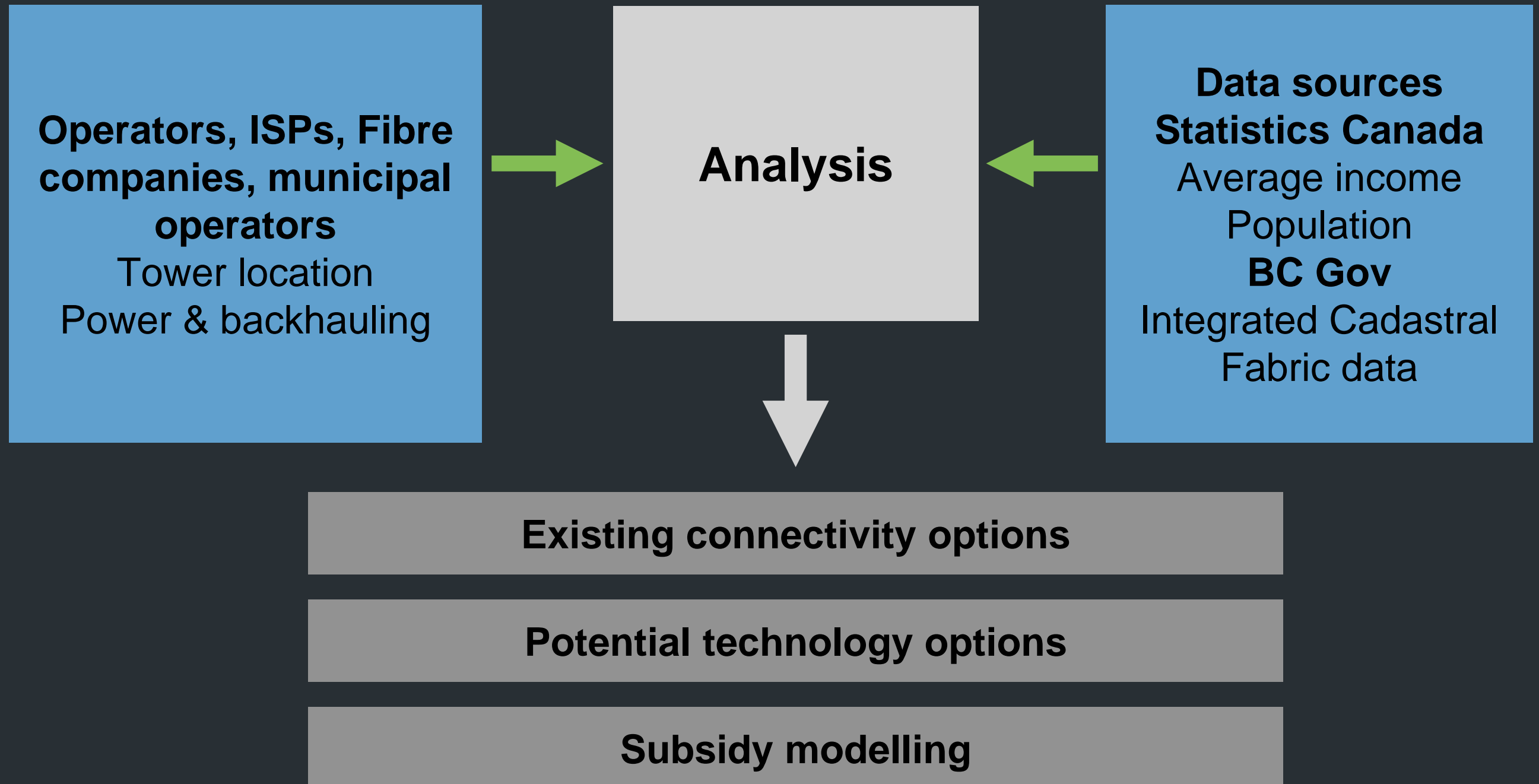


- The cost of supply is currently greater than demand
- The challenge is to change the equation so that income is greater than supply, either by reducing the cost of supply or increasing income

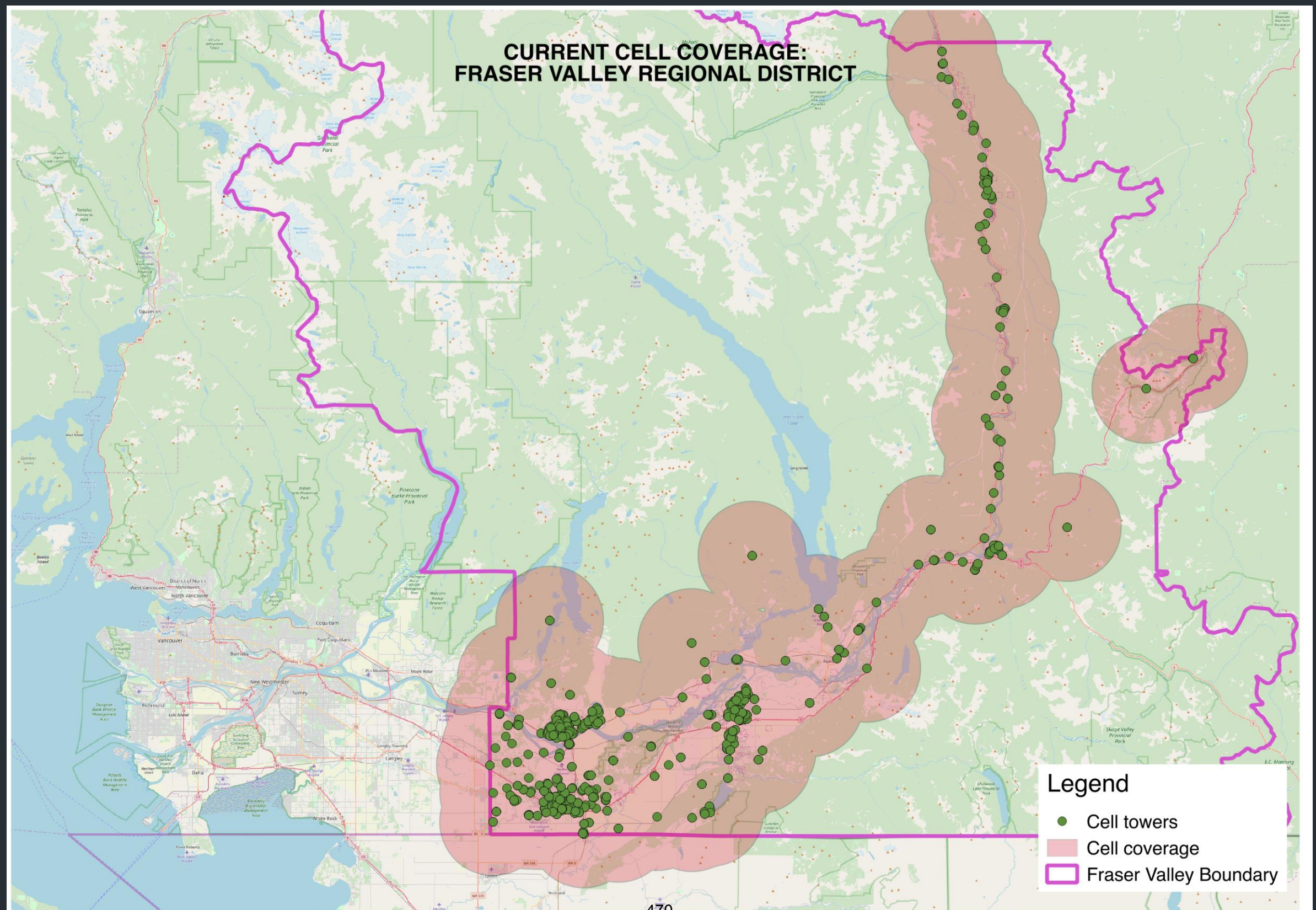
STEP 1

CONNECTIVITY &
TECHNOLOGY ASSESSMENT

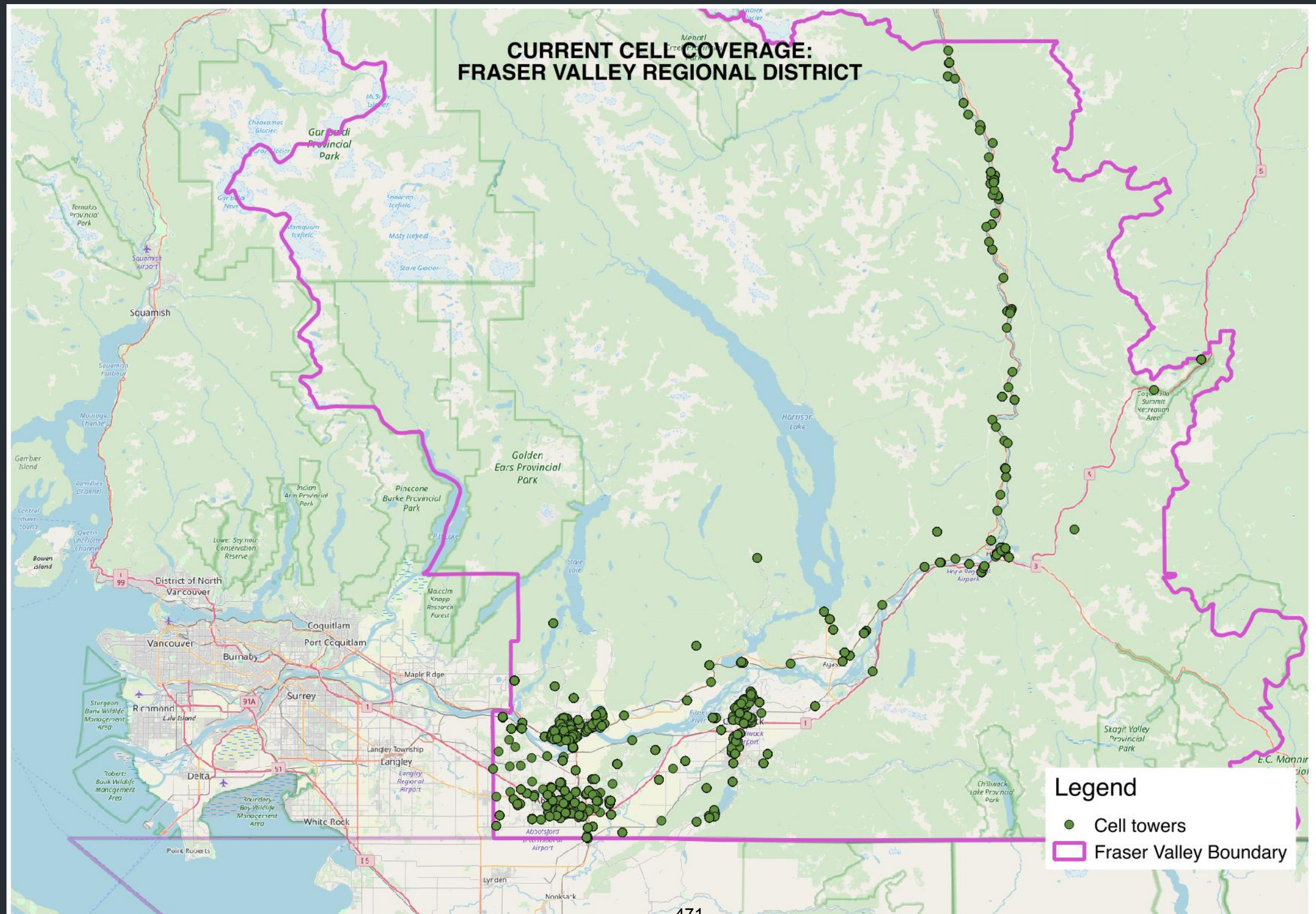
PROCESS




EXISTING CELL COVERAGE



EXISTING TOWER LOCATIONS






CADASTRE LOCATIONS



Home Data Sources Export Sketch Find Help

Home Pan Zoom In Zoom Out Full Extent Back Forward Identify Print Albers Lat / Long UTM District Lot Plot Coordinates Bookmarks

Home Navigation Find Data Export Zoom To Coordinates Bookmarks

Parcel Name: 015359964    I want to...

Details

Parcel Name
015359964

Plan Number
NEP2352

Parcel Identification Number (PIN)
N/A

Parcel Identifier (PID - Text)
015359964

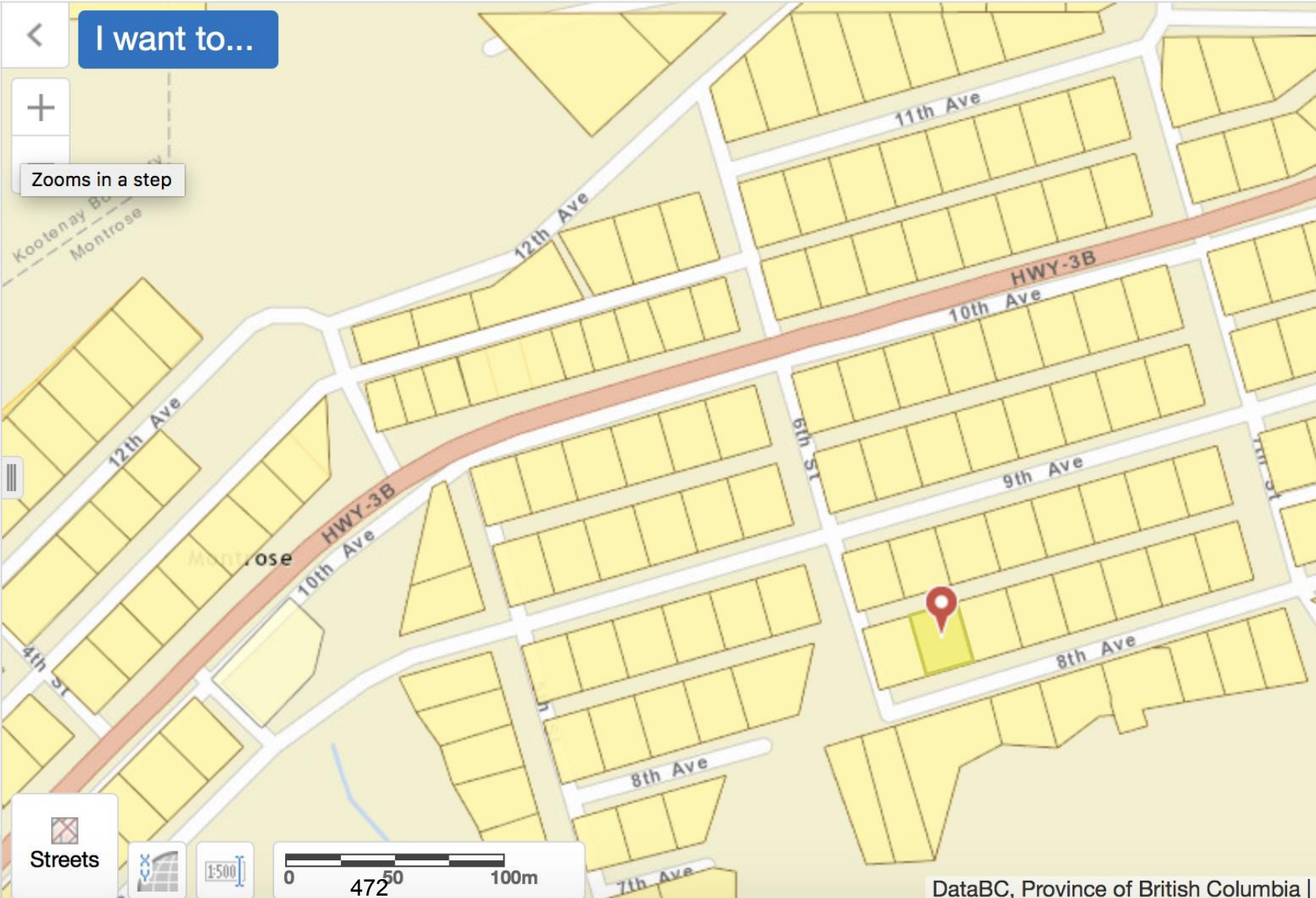
Parcel Identifier (PID - Number)
15359964

Parcel Status
Active

Parcel Class
Subdivision

Owner Type
Private

Municipality
Montrose The Corporation of the Village of


Zooms in a step

Streets

0 472 50 100m

DataBC, Province of British Columbia |

CADASTRE LOCATIONS

- BC has made available all cadastre locations via iMap BC
- Using this tool, we are able to plan at a granular level what the technology options could be for broadband access around the FVRD
- All data would be combined into a single map to enable better planning and decision-making for broadband access.

EXISTING CONNECTIVITY OPTIONS

- Who are the current ISPs, mobile operators, cable providers operating around the Fraser Valley Regional District?
- Of these, mapping the existing fibre connectivity is the most critical
- Data is relatively scarce, but maps can be built using a combination of:
 - Interviews with existing cable providers
 - Web scraping to find out where major cable companies (Shaw, Telus etc.) offer fibre connectivity
- Output is a map showing fibre connectivity, suppliers, planned fibre rollout
- Once this information is in one place, we can analyse which communities are the most viable and what funding arrangements best suit them.

OPTIONS

- There are several technology options and combinations of options and these would need to be assessed based on cost, willingness to pay as well as appropriate governance structures (see Step 2). Fibre access:
 - Fibre to the town boundaries (we'll need confirmation of where fibre currently sits)
 - Fibre to the curb (FTTc)
 - Fibre to the Neighbourhood (FTTn)
 - Fibre to the Home (FTTh)
- Last mile access:
 - Fixed Wireless Access at 3.5 GHz
 - Wifi 802.11 ac (2.4 GHz and 5 GHz)
 - Urban mmWave 802.11ad (60 Ghz)

STEP 2

GOVERNANCE STRUCTURE AND
POTENTIAL VENDORS

GOVERNANCE

Some kind of partnership model is necessary because the FVRD doesn't have the resources to roll out fibre infrastructure by itself. There are essentially two key variables:

1. Who owns the network? There are 3 possible models:
 - a. Local government-owned through some sort of municipal corporation (Valley Community Fibre Network <http://vcfn.ca/> as an example in Nova Scotia)
 - b. Citizen's cooperative operating with the tacit support of local government (e.g. B4RN model in UK)
 - c. Private network operator that enters into an agreement with the municipality

The appropriate option is dependent upon the mix of technology and funding that is available.

/GOVERNANCE (2)

2. Who operates the network?

- a. Outsourced to the private sector (Valley Community Fibre Network)
- b. Operated by a community organisation (B4RN)

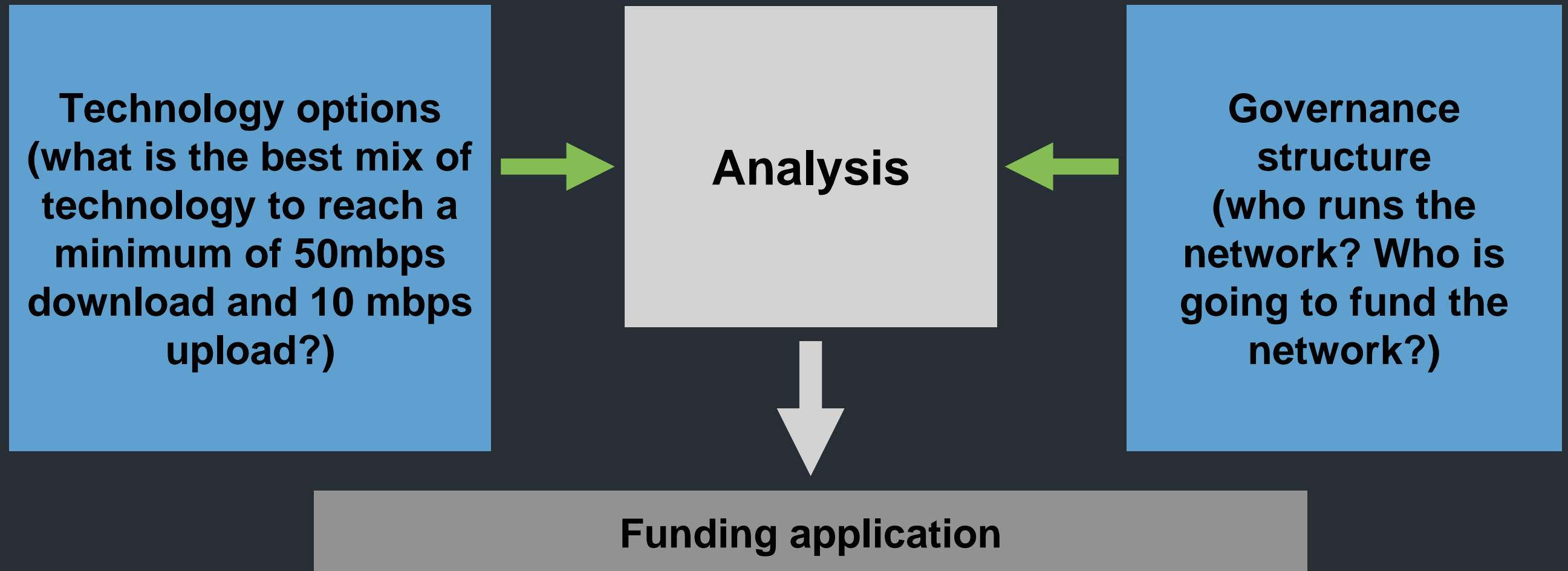
The type of technology chosen will determine who operates the network (as an example, fibre last-mile networks are generally easier to operate than wireless networks).

Each of these options (ownership & operation) will be considered as part of the study taking into consideration the circumstances of the FVRD.

STEP 3

FUNDING APPLICATION

FUNDING APPLICATION



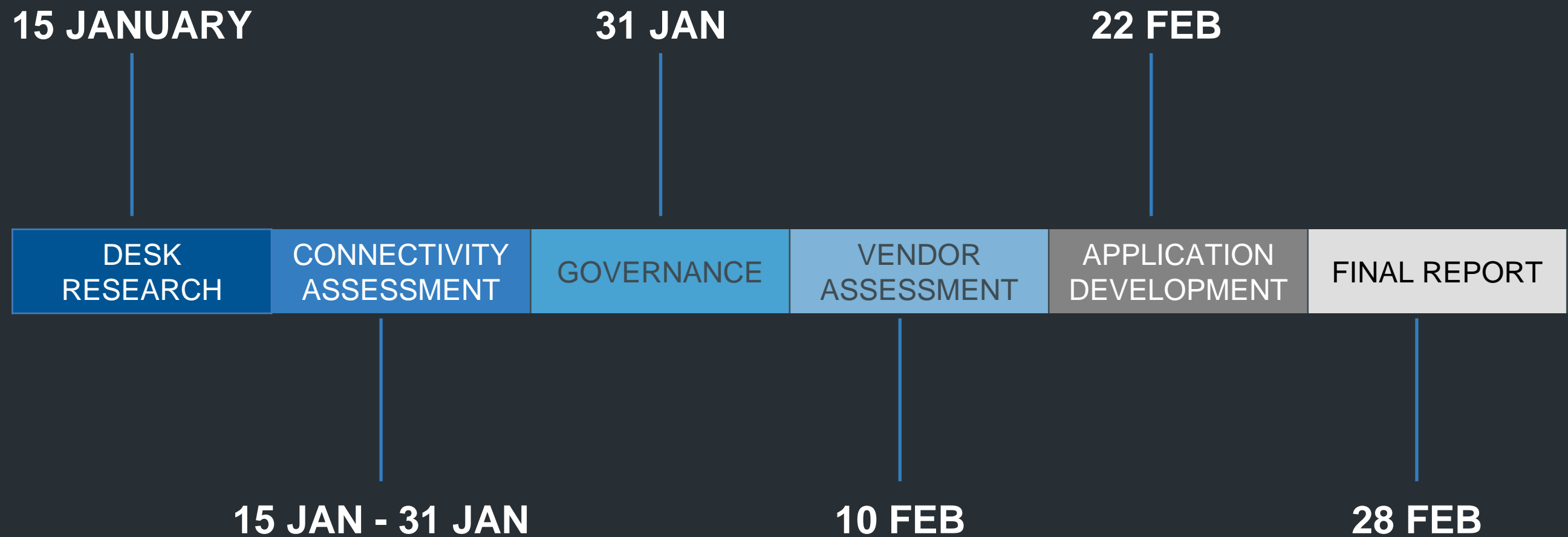
- RIS provides inputs into the FVRD's funding application to the Northern Development Trust Initiative and the Economic Diversification Infrastructure Fund.
- Funds are used to rollout the broadband network.

FUNDING (2)

This cost can be reduced by:

- Getting funding from Northern Development Trust for a percentage of costs
- Reducing cost of provision by having FTTx and running wifi or urban mmWave wifi for other last mile connectivity
- Funded by the FVRD and amortized over a number of years

/IMPLEMENTATION



BUDGET

	Rate CAD	Units	Total CAD
Desk research	600	5	3,000
Meeting stakeholders	600	5	3,000
Technology options	600	5	3,000
Vendor discussions	600	3	1,800
Funding application	600	4	2,400
Transport, accommodation and per diems			300
			13,500

Research ICT Solutions



**DR. CHRISTOPH
STORK**
PARTNER, RIS
**PHD,
ECONOMICS**



STEVE SONG
ASSOCIATE, RIS
**FOUNDER OF
VILLAGE TELCO**



ANDY DYMOND
SENIOR
CONSULTANT,
RIS
MSC
**(DEVELOPMENT
ECONOMICS)**
AND P.ENG. (BC)
TELECOMS



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