

# FRASER VALLEY REGIONAL DISTRICT



## REGIONAL AND CORPORATE SERVICES COMMITTEE

### OPEN MEETING AGENDA

Tuesday, July 9, 2019

9:00 am

FVRD Boardroom, 45950 Cheam Avenue, Chilliwack, BC

---

Pages

1. CALL TO ORDER

2. APPROVAL OF AGENDA, ADDENDA AND LATE ITEMS

**MOTION FOR CONSIDERATION**

**THAT** the Agenda, Addenda and Late Items for the Regional and Corporate Services Committee Open Meeting of July 9, 2019 be approved;

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

3. DELEGATIONS AND PRESENTATIONS

3.1 **Chilliwack Search and Rescue**

Presentation by Dave Casey, Doug Fraser and Tracey Heron regarding Chilliwack Search and Rescue services

4. MINUTES/MATTERS ARISING

4.1 **Draft Minutes of the Regional and Corporate Services Committee Open Meeting - June 11, 2019**

5 - 10

**MOTION FOR CONSIDERATION**

**THAT** the Minutes of the Regional and Corporate Services Committee Open Meeting of June 11, 2019 be adopted.

5. CORPORATE ADMINISTRATION

5.1 **FVRD Bylaw Offence Notice Enforcement Amendment Bylaw No. 1532, 2019**

11 - 26

- Corporate report dated July 9, 2019 from Pam Loat, Legislative Coordinator

- Draft Bylaw No. 1532, 2019

**MOTION FOR CONSIDERATION**

**THAT** the Fraser Valley Regional District Board consider giving three readings and adoption to the bylaw cited as *Fraser Valley Regional District Bylaw Offence Notice Enforcement Amendment Bylaw No. 1532, 2019*

**6. FINANCE**

No Items.

**7. REGIONAL PROGRAMS AND SERVICES**

**7.1 ENVIRONMENTAL SERVICES**

**7.1.1 FVRD's Corporate Greenhouse Gas Emissions for 2018**

27 - 55

- Corporate report dated July 9, 2019 from Micha Gutmanis, Environmental Services Coordinator
- Climate Action Revenue Incentive Public Report for 2018

**MOTION FOR CONSIDERATION**

**THAT** the Fraser Valley Regional District Board accept the 2018 Climate Action Revenue Incentive Report for the Fraser Valley Regional District;

**AND THAT** the Fraser Valley Regional District Board direct staff to report back with a recommendation for specifically allocating the accumulated annual carbon tax refunds towards a cost-effective efficiency upgrade project(s) that will offer significant carbon footprint reductions to the FVRD buildings and/or operations.

**7.2 REGIONAL PARKS**

No Items.

**7.3 STRATEGIC PLANNING AND INITIATIVES**

**7.3.1 Future Rail Transit in the Fraser Valley**

56 - 184

- Corporate report dated July 9, 2019 from Alison Stewart, Manager of Strategic Planning
- June 12, 2019 TransLink staff Interurban Passenger Rail report
- June 25, 2019 email to FVRD regarding Transport 2050 public engagement sessions
- June 11, 2019 materials provided by South

**MOTION FOR CONSIDERATION**

**THAT** the Fraser Valley Regional District Board remain focused on its priority of strongly encouraging the province to expedite the widening of Highway 1 to support HOV/bus lanes as a means of improving the viability of transit, improving public safety and supporting the broader Fraser Valley economy;

**AND THAT** the Fraser Valley Regional District Board request that TransLink directly engage the Fraser Valley Regional District, member municipalities, BC Transit and the province on those aspects of the *Transport 2050* Plan that consider inter-regional linkages and policies that may impact this Region.

**7.4 OUTDOOR RECREATION AND PLANNING**

**7.4.1 FVRD's Regional Trail Network Group**

185 - 187

- Corporate Report dated July 9, 2019 from Meghan Jackson, Parks Technician

**MOTION FOR CONSIDERATION**

**THAT** the Fraser Valley Regional District Board expand the scope of its Trail Network Group to a regional scale to ensure representation from organizations involved in the maintenance and/or management of trails within the entire geographic area.

- 8. OTHERS MATTERS
- 9. ADDENDA ITEMS/LATE ITEMS
- 10. REPORTS BY STAFF
- 11. REPORTS BY DIRECTORS
- 12. PUBLIC QUESTION PERIOD FOR ITEMS RELEVANT TO AGENDA
- 13. RESOLUTION TO CLOSE MEETING

**MOTION FOR CONSIDERATION**

**THAT** the meeting be closed to the public, except for Senior Staff and the Executive Assistant, for the purpose of receiving and adopting Closed Meeting Minutes convened in accordance with Section 90 of the *Community Charter* and to consider matters pursuant to:

- Section 90(1)(g) of the *Community Charter* - litigation or potential litigation affecting the regional district.

**R E C E S S**

14. **RECONVENE OPEN MEETING**
15. **RISE AND REPORT OUT OF CLOSED MEETING**
16. **ADJOURNMENT**

**MOTION FOR CONSIDERATION**

**THAT** the Regional and Corporate Services Committee Open Meeting of July 9, 2019 be adjourned.

# FRASER VALLEY REGIONAL DISTRICT REGIONAL AND CORPORATE SERVICES COMMITTEE OPEN MEETING MINUTES

Tuesday, June 11, 2019  
9:00 am  
FVRD Boardroom, 45950 Cheam Avenue, Chilliwack, BC

- Members Present: Director Jason Lum, City of Chilliwack, Chair  
Director Pam Alexis, District of Mission  
Director Bill Dickey, Electoral Area D  
Director Orion Engar, Electoral Area E  
Director Leo Facio, Village of Harrison Hot Springs  
Director Ken Popove, City of Chilliwack  
Director Sylvia Pranger, District of Kent  
Director Terry Raymond, Electoral Area A  
Director Peter Robb, District of Hope  
Director Al Stobbart, Electoral Area G
- Regrets: Director Henry Braun, City of Abbotsford  
Director Patricia Ross, City of Abbotsford
- Staff Present: Jennifer Kinneman, Acting Chief Administrative Officer  
Mike Veenbaas, Director of Financial Services/Chief Financial Officer  
Jaime Reilly, Manager of Corporate Administration/Corporate Officer  
Suzanne Gresham, Director of Corporate Initiatives  
Stacey Barker, Director of Regional Services  
Alison Stewart, Manager of Strategic Planning  
Christina Vugteveen, Manager of Parks  
Janice Mikuska, Manager of Human Resources  
David Urban, Manager of Outdoor Recreation Planning  
Kristy Hodson, Manager of Financial Operations  
Micha Gutmanis, Environmental Services Coordinator  
Melissa Geddert, Planning Technician (Strategic Planning)  
Matthew Fang, Network Analyst I  
Deanne Bozek, Departmental Secretary, Regional Services  
Chris Lee, Executive Assistant (Recording Secretary)
- Also Present: Rick Green, South Fraser Community Rail (*as per item 3.1*)  
Britt Gardner (*as per item 3.1*)  
Lee Lockwood (*as per item 3.1*)  
Roy Mufford (*as per item 3.1*)  
John Vissers (*as per item 3.1*)

**1. CALL TO ORDER**

Chair Lum called the meeting to order at 9:00 a.m.

**2. APPROVAL OF AGENDA, ADDENDA AND LATE ITEMS**

Moved By FACIO  
Seconded By ALEXIS

**THAT** the Agenda, Addenda and Late Items for the Regional and Corporate Services Committee Open Meeting of June 11, 2019 be approved;

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

**CARRIED**

**3. DELEGATIONS AND PRESENTATIONS**

**3.1 Rick Green, South Fraser Community Rail**

Rick Green of South Fraser Community Rail provided a comprehensive PowerPoint presentation relating to *Community Rail South of the Fraser on the InterUrban Corridor*, highlighting the worsening traffic congestion on Highway #1 and the costs and environmental impacts resulting from this 'bottleneck'. He outlined the proposal for a hydrogen-powered light rail from Surrey to Chilliwack and highlighted on the benefits of this initiative, emphasizing that the population is growing exponentially in the Fraser Valley and the need for improved transportation to sustain this growth.

Mr. Green requested the Committee's support to approach BC Transit Board to gain their concurrence on this initiative. He added that it would be beneficial also to get TransLink on board on this initiative.

DICKEY/ROBB

**THAT** the proposal provided by South Fraser Community Rail with respect to *Community Rail South of the Fraser on the InterUrban Corridor* be referred to staff to report back for further discussion at an upcoming Board meeting.

**CARRIED**

**4. MINUTES/MATTERS ARISING**

**4.1 Minutes of the Regional and Corporate Services Committee Open Meeting - May 8, 2019**

Moved By FACIO  
Seconded By STOBART

**THAT** the Minutes of the Regional and Corporate Services Committee Open Meeting of May 8, 2019 be adopted.

**CARRIED**

**5. CORPORATE ADMINISTRATION**

No Items.

**6. FINANCE**

No Items.

**7. REGIONAL PROGRAMS AND SERVICES**

**7.1 ENVIRONMENTAL SERVICES**

No Items.

**7.2 REGIONAL PARKS**

**7.2.1 Updated FVRD Parks Closure Policy**

Moved By RAYMOND  
Seconded By ALEXIS

**THAT** the Fraser Valley Regional District Board adopt the updated *Parks Closure Policy*.

**CARRIED**

**7.3 STRATEGIC PLANNING AND INITIATIVES**

**7.3.1 Fraser Valley Regional District Clean Economy Study**

It was reported that staff will provide a presentation on the *Fraser Valley Regional District Clean Economy Study* at the upcoming June Board meeting.

Moved By ROBB  
Seconded By PRANGER

**THAT** the Fraser Valley Regional District Board receive the *Fraser Valley Regional District Clean Economy Study*;

**AND THAT** staff be directed to create a companion resource guide for local governments, First Nations and stakeholders to serve as a tool to support clean economy opportunities.

**CARRIED**

**7.3.2 Proposed UBCM Resolution - Provincial Response to Homeless Camps on Crown Lands**

It was noted that solving the addiction problem is critical when dealing with the homeless and this should be emphasized to the Province.

Moved By FACIO  
Seconded By ENGAR

**THAT** the Fraser Valley Regional District Board forward a resolution on the need for a provincial strategy to address rural homelessness and encampments on Crown land to the Union of BC Municipalities for consideration at its September 2019 convention;

**AND THAT** the resolution shall be as follows:

**RURAL HOMELESSNESS: CROWN LAND ENCAMPMENTS**

**WHEREAS** Homelessness is a challenge facing both urban and rural communities;

**AND WHEREAS** electoral areas have the least ability to address homelessness, in that they are by their very nature remote from health, social, police and other services and the minimal tax bases cannot support the hard and soft infrastructure required to address homelessness;

**AND WHEREAS** the province's response to homeless encampments on Crown land has been inconsistent or ad-hoc in nature, sometimes relocating encampments without taking into account impacts on rural communities and regional district resources;

**THEREFORE IT BE RESOLVED** that the province of British Columbia through its newly established Office of Homelessness Coordination within the Ministry of Poverty Reduction and Social Development develop a rural homelessness strategy to address what is clearly a gap in the province's response to homelessness.

**CARRIED**

**7.4 OUTDOOR RECREATION AND PLANNING**

No Items.

**8. ADDENDA ITEMS/LATE ITEMS**

No items.

**9. REPORTS BY STAFF**

None

**10. REPORTS BY DIRECTORS**

Director Facio reported that Sasquatch Days will be taking place at the Harrison Hot Springs this coming weekend and extended invitation to all to attend.

**11. PUBLIC QUESTION PERIOD FOR ITEMS RELEVANT TO AGENDA**

None

**12. RESOLUTION TO CLOSE MEETING**

Moved By PRANGER

Seconded By ALEXIS

**THAT** the meeting be closed to the public, except for Senior Staff and the Executive Assistant, for the purpose of receiving and adopting Closed Meeting Minutes convened in accordance with Section 90 of the *Community Charter* and to consider matters pursuant to:

- Section 90(1)(c) of the *Community Charter* - labour relations or other employee relations.

**CARRIED**

The Open Meeting recessed at 9:46 a.m.

**13. RECONVENE OPEN MEETING**

The Open Meeting reconvened at 10:01 a.m.

**14. RISE AND REPORT OUT OF CLOSED MEETING**

None

**15. ADJOURNMENT**

Moved By ALEXIS

Seconded By FACIO

---

**THAT** the Regional and Corporate Services Committee Open Meeting of June 11, 2019 be adjourned.

**CARRIED**

The Regional and Corporate Services Committee Open Meeting adjourned at 10:02 a.m.

MINUTES CERTIFIED CORRECT:

.....  
Director Jason Lum, Chair

DRAFT

To: CAO for the Regional and Corporate Services Committee

Date: 2019-07-09

From: Pam Loat, Legislative Coordinator

File No: 3920-20

**Subject: Bylaw Offence Notice Enforcement Amendment Bylaw No. 1532, 2019**

---

## RECOMMENDATION

**THAT** the Fraser Valley Regional District Board consider giving three readings and adoption to the bylaw cited as *Fraser Valley Regional District Bylaw Offence Notice Enforcement Amendment Bylaw No. 1532, 2019*

## STRATEGIC AREA(S) OF FOCUS

Provide Responsive & Effective Public Services

## BACKGROUND

*Bylaw Offence Notice Enforcement Bylaw No.1415, 2017* requires updating with respect to some recently adopted regulatory bylaws, namely:

- *Sub-Regional Animal Control Regulations Amendment Bylaw No. 1527;*
- *Electoral Areas Dangerous and Aggressive Dog Regulation Amendment Bylaw No. 1531;*
- *Parks Regulations, Fees and Other Charges Establishment Bylaw No. 1500;*
- *Cultus Lake Park Zoning Bylaw No. 1375;*

## DISCUSSION

**ANIMAL CONTROL:** Recently adopted *Sub-Regional Animal Control Regulation Amendment Bylaw No. 1527, 2019* and *Electoral Areas Dangerous and Aggressive Dog Regulation Amendment Bylaw No 1531, 2019* clarified the wording for several contraventions and added specific provisions for aggressive incidences that result in dog mortality in order to allow for the implementation of greater fines. The following changes to the Bylaw Notice Enforcement Bylaw are recommended to reflect these amendments.

*Animal Control Bylaw No. 1206, 2013* – the following wording changes and new fines are to be added:

Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
17(e)	Dog <b>Attacking or</b> Causing Injury	\$250	\$240	\$260	Yes
17(f)	Dog <b>Aggressively</b> Pursuing or Harassing	\$250	\$240	\$260	Yes
<b>17(g)</b>	<b>Dog Causing Death</b>	<b>\$500</b>	<b>\$490</b>	<b>\$510</b>	<b>Yes</b>
32	Hitched or <b>Tied for</b> Extended Period of Time as Primary Means of Confinement	\$100	\$90	\$110	Yes
35	Animal Kept in <b>Prohibited Area Where Not Permitted</b>	\$100	\$90	\$110	Yes

*Sub Regional Animal Control Bylaw No. 1206, 2013* – The following penalty amount is to be increased to serve as a deterrent and to reflect fine rates being applied in other jurisdictions:

Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
30	Animal Confined Without Proper Ventilation	<del>\$200</del> <b>500</b>	<del>\$190</del> <b>490</b>	<del>\$210</del> <b>510</b>	Yes

*Electoral Area Dangerous and Aggressive Dog Regulation Bylaw No. 1247, 2013*– the following wording changes and new fines are to be added:

Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
1(a)	Dog <b>Attacking or</b> Causing Injury	\$250	\$240	\$260	Yes
<b>1(c)</b>	<b>Dog Causing Death</b>	<b>\$500</b>	<b>\$490</b>	<b>\$510</b>	<b>Yes</b>
13	Hitched or <b>Tied for</b> Extended Period of Time as Primary Means of Confinement	\$100	\$90	\$110	Yes

Sub Regional Animal Control Bylaw No. 1206, 2013 – The following penalty amount is to be increased to serve as a deterrent and to reflect fine rates being applied in other jurisdictions:

Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
11	Animal Confined Without Proper Ventilation	\$100 500	\$90 490	\$110 510	Yes

**PARKS:** Adopted Parks Regulation Bylaw No. 1500, 2018 repealed Parks Regulation Bylaw No. 1273, 2014. The Bylaw Notice Enforcement Bylaw requires housekeeping updates to reflect small changes in wording and numbering and to remove fines for contraventions which are no longer prohibited. Fines have been removed for using snow sliding devices, having more than 3 domestic animals in a park and operating a public address system.

The following new fines are to be added:

Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
7.13	Standing, climbing, sitting on fences and railings	\$100	\$90	\$110	No
8.7	Traveling in a park where posted notice prohibits travel	\$100	\$90	\$110	No
9.4	Dog off leash outside of designated off leash areas	\$100	\$90	\$110	No
10.7	Unauthorized parking in designated accessible or emergency personnel parking	\$100	\$90	\$110	No
11.2	Use of vessel to interfere with safe and free use of boat launch	\$100	\$90	\$110	No
11.3	Mooring of boat in non-authorized area	\$100	\$90	\$110	No

The following penalty amounts have increased due to the potential for severe environmental impacts associated with these actions:

Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
8.1 (g)	Feed wildlife	\$ <del>100</del> 500	\$ <del>90</del> 490	\$ <del>110</del> 510	No
8.1 (h)	Introduce contaminant	\$ <del>200</del> 500	\$ <del>190</del> 490	\$ <del>210</del> 510	No

**CULTUS LAKE PARK ZONING:** Cultus Lake Park Zoning Bylaw No. 1375, 2016 was adopted in 2018. Adding this Bylaw to Schedule B of the Bylaw Offence Notice Enforcement Bylaw will allow for the issuing of fines for zoning contraventions in Cultus Lake Park. Fine amounts will be consistent with the amounts for all other zoning contraventions.

**COST**

None

**CONCLUSION**

Proposed *Fraser Valley Regional District Bylaw Offence Notice Enforcement Bylaw Amendment Bylaw No. 1532, 2019* amends Bylaw No. 1415, 2017 to incorporate changes in recent amended regulatory bylaws and to include Cultus Lake Park in the schedule for zoning contraventions.

**COMMENTS BY:**

- Jaime Reilly, Manager of Corporate Administration:** Reviewed and supported.
- Stacey Barker, Director of Regional Services:** Reviewed and supported.
- Margaret-Ann Thornton, Director of Planning and Development:** Reviewed and supported.
- Mike Veenbaas, Director of Financial Services:** Not available for comment.
- Jennifer Kinneman, Acting Chief Administrative Officer:** Not available for comment.

**FRASER VALLEY REGIONAL DISTRICT**

**BYLAW NO. 1532, 2019**

**A bylaw to amend the Bylaw Offence Notice Enforcement Bylaw**

---

**WHEREAS** the Board of Directors of the Fraser Valley Regional District has deemed it advisable to amend *Fraser Valley Regional District Bylaw Offence Notice Enforcement Bylaw No. 1415, 2017*.

**THEREFORE** the Board of Directors of the Fraser Valley Regional District, in open meeting assembled, enacts as follows:

**1) CITATION**

This bylaw may be cited as *Fraser Valley Regional District Bylaw Offence Notice Enforcement Amendment Bylaw No. 1532, 2019*.

**2) ENACTMENTS**

That Fraser Valley Regional District Bylaw No. 1415, 2017 be amended by:

- a. deleting Schedule A-3 (Animal Control Regulations) in its entirety and replacing it with Schedule A-3 attached hereto and forming an integral part of this bylaw;
- b. deleting Schedule A-4 (Electoral Areas Dangerous and Aggressive Dog Regulations) in its entirety and replacing it with Schedule A-4 attached hereto and forming an integral part of this bylaw;
- c. deleting Schedule A-5 (Parks Regulations) in its entirety and replacing it with Schedule A-5 attached hereto and forming an integral part of this bylaw;
- d. deleting "Schedule B Land Use Bylaw Contraventions and Penalties" in its entirety and replacing it with Schedule B attached hereto and forming 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 \_\_\_\_\_

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 that this is a true and correct copy of *Fraser Valley Regional District Bylaw Offence Notice Enforcement Amendment Bylaw No. 1532, 2019* as adopted by the Board of Directors of the Fraser Valley Regional District on the \_\_\_\_\_

Dated at Chilliwack, BC this \_\_\_\_\_

\_\_\_\_\_  
Corporate Officer/Deputy

**FRASER VALLEY REGIONAL DISTRICT BYLAW NO. 1415, 2017**  
**Schedule A-3**

**DESIGNATED BYLAW CONTRAVENTIONS AND PENALTIES**  
**Animal Control**

<b>Bylaw Notice bylaw citation</b>	<b>Section</b>	<b>Description</b>	<b>A1 Penalty</b>	<b>A2 Early Payment Penalty</b>	<b>A3 Late Payment Penalty</b>	<b>A4 Compliance Agreement Available</b>
<b>Animal Control Bylaw No. 1206, 2013</b>	1	No Dog Licence	\$200	\$190	\$210	Yes
	D	Excess Pets	\$100	\$90	\$110	Yes
	16	Barking or Howling Dog	\$100	\$90	\$110	Yes
	17(a)	Dog at Large	\$100	\$90	\$110	Yes
	17(b)	Dog Trespassing	\$100	\$90	\$110	Yes
	17(c)	Dog Not Contained on Private Property	\$100	\$90	\$110	Yes
	17(d)	Dog Not Restrained in Public Place	\$100	\$90	\$110	Yes
	17(e)	Dog Attacking or Causing Injury	\$250	\$240	\$260	Yes
	17(f)	Dog Aggressively Pursuing or Harassing	\$250	\$240	\$260	Yes
	17(g)	Dog Causing Death	\$500	\$490	\$510	Yes
	18	Fail to Remove Excrement	\$75	\$65	\$85	Yes
	20	In Heat Dog Not Securely Confined	\$100	\$90	\$110	Yes
	24(a)	Aggressive Dog not Securely Confined	\$500	\$490	\$510	Yes
	24(b)(i)	Aggressive Dog Not on a Leash	\$500	\$490	\$510	Yes
	24(b)(ii)	Aggressive Dog No Competent Person	\$500	\$490	\$510	Yes
	24(b)(iii)	Aggressive Dog No Muzzle	\$500	\$490	\$510	Yes

<b>Bylaw Notice bylaw citation</b>	<b>Section</b>	<b>Description</b>	<b>A1 Penalty</b>	<b>A2 Early Payment Penalty</b>	<b>A3 Late Payment Penalty</b>	<b>A4 Compliance Agreement Available</b>
<b>Animal Control Bylaw No. 1206, 2013 (con't)</b>	24(c)	Aggressive Dog No Microchip	\$500	\$490	\$510	Yes
	24(e)	Aggressive Dog No Photo	\$500	\$490	\$510	Yes
	27	Animal with Infectious Disease Not Confined	\$200	\$190	\$210	Yes
	28(a)	No Clean Water and Sufficient Food	\$100	\$90	\$110	Yes
	28(b)	No Sanitary Food Water Receptacles	\$100	\$90	\$110	Yes
	28(c)	No Sufficient Exercise	\$100	\$90	\$110	Yes
	28(d)	No Sufficient Bedding	\$100	\$90	\$110	Yes
	28(e)	No Necessary Veterinary Care	\$100	\$90	\$110	Yes
	29	Animal Outside Without Shelter	\$100	\$90	\$110	Yes
	30	Animal Confined Without Proper Ventilation	\$500	\$490	\$510	Yes
	31	Hitched With Chain or Rope Around Neck	\$100	\$90	\$110	Yes
	32	Hitched or Tied as Primary Means of Confinement	\$100	\$90	\$110	Yes
	33(a)	More Than One Animal in Cage	\$200	\$190	\$210	Yes
	33(b)	Aggressive Dog with Other Animals	\$500	\$490	\$510	Yes
	33(c)	Keeping pups with adults	\$100	\$90	\$110	Yes
	33(d)	Communicable Disease with Other Animals	\$100	\$90	\$110	Yes
	34(a)(i)	Insufficient Heating or Cooling System	\$100	\$90	\$110	Yes

Bylaw Notice bylaw citation	Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available
<b>Animal Control Bylaw No. 1206, 2013 (con't)</b>	34(a)(ii)	Insufficient Cage or Pen Size	\$100	\$90	\$110	Yes
	34(a)(iii)	Insufficient Light and Ventilation	\$100	\$90	\$110	Yes
	34(a)(iv)	Insufficient Cleaning or Sanitizing	\$100	\$90	\$110	Yes
	34(b)	Insufficient Exercise Area	\$100	\$90	\$110	Yes
	35	Animal Kept Where Not Permitted	\$100	\$90	\$110	Yes
	36	Livestock or Poultry at Large	\$200	\$190	\$210	Yes
	38	Keeping Exotic Animal	\$500	\$490	\$510	Yes
	39	Exotic Animal at large	\$500	\$490	\$510	Yes
	44	Unauthorized Possession of Impounded Animal	\$500	\$490	\$510	Yes
	51	Interfere with or Obstruct Entry	\$200	\$190	\$210	Yes

**FRASER VALLEY REGIONAL DISTRICT BYLAW NO. 1415, 2017**  
**Schedule A-4**

**DESIGNATED BYLAW CONTRAVENTIONS AND PENALTIES**  
**Electoral Areas Dangerous and Aggressive Dog Regulations**

<b>Bylaw Notice bylaw citation</b>	<b>Section</b>	<b>Description</b>	<b>A1 Penalty</b>	<b>A2 Early Payment Penalty</b>	<b>A3 Late Payment Penalty</b>	<b>A4 Compliance Agreement Available</b>
<b>Electoral Areas Dangerous and Aggressive Dog Regulation Bylaw No. 1247, 2013</b>	1(a)	Dog Attacking or Causing Injury	\$250	\$240	\$260	Yes
	1(b)	Dog Pursuing or Harassing	\$250	\$240	\$260	Yes
	1(c)	Dog Causing Death	\$500	\$490	\$510	Yes
	6(a)	Aggressive Dog not Securely Confined	\$500	\$490	\$510	Yes
	6(b)(i)	Aggressive Dog Not on a Leash	\$500	\$490	\$510	Yes
	6(b)(ii)	Aggressive Dog No Competent Person	\$500	\$490	\$510	Yes
	6(b)(iii)	Aggressive Dog No Muzzle	\$500	\$490	\$510	Yes
	6(c)	Aggressive Dog No Microchip	\$500	\$490	\$510	Yes
	6(e)	Aggressive Dog No Photo	\$500	\$490	\$510	Yes
	9(a)	No Clean Water and Sufficient Food	\$100	\$90	\$110	Yes
	9(b)	No Sanitary Food Water Receptacles	\$100	\$90	\$110	Yes
	9(c)	No Sufficient Exercise	\$100	\$90	\$110	Yes
	9(d)	No Sufficient Bedding	\$100	\$90	\$110	Yes
	9(e)	No Necessary Veterinary Care	\$100	\$90	\$110	Yes
	10	Animal Outside Without Shelter	\$100	\$90	\$110	Yes
	11	Animal Confined Without Proper Ventilation	\$500	\$490	\$510	Yes

<b>Bylaw Notice bylaw citation</b>	<b>Section</b>	<b>Description</b>	<b>A1 Penalty</b>	<b>A2 Early Payment Penalty</b>	<b>A3 Late Payment Penalty</b>	<b>A4 Compliance Agreement Available</b>
<b>Electoral Areas Dangerous and Aggressive Dog Regulation Bylaw No. 1247, 2013 (con't)</b>	12	Hitched With Chain or Rope Around Neck	\$100	\$90	\$110	Yes
	13	Hitched or Tied as Primary Means of Confinement	\$100	\$90	\$110	Yes
	22	Interfere with or Obstruct Entry	\$200	\$190	\$210	Yes

**FRASER VALLEY REGIONAL DISTRICT BYLAW NO. 1532, 2019**

**Schedule A-5**  
**DESIGNATED BYLAW CONTRAVENTIONS AND PENALTIES**  
**Parks Regulations**

<b>Bylaw Notice bylaw citation</b>	<b>Section</b>	<b>Description</b>	<b>A1 Penalty</b>	<b>A2 Early Payment Penalty</b>	<b>A3 Late Payment Penalty</b>	<b>A4 Compliance Agreement Available</b>
<b>Parks Regulations Bylaw No. 1500, 2018</b>	7.1	Obstruction of authorized personnel	\$150	\$140	\$160	No
	7.4	Possession of alcohol	\$100	\$90	\$110	No
	7.5	Urination or defecation in a park	\$100	\$90	\$110	No
	7.6	Enter closed park	\$100	\$90	\$110	No
	7.8	Cause a disturbance	\$100	\$90	\$110	No
	7.9	Disturb the peace	\$100	\$90	\$110	No
	7.10	Unauthorized camping	\$100	\$90	\$110	No
	7.11	Unauthorized interference	\$100	\$90	\$110	No
	7.12	Use of remote controlled device	\$100	\$90	\$110	No
	7.13	Standing, climbing, sitting on fences and railings	\$100	\$90	\$110	No
	7.14	Smoking in a park	\$100	\$90	\$110	No
	8.1 (a)	Damage a natural park feature	\$200	\$190	\$210	No
	8.1 (b)	Build or alter a trail	\$200	\$190	\$210	No
	8.1 (c)	Deface a structure	\$200	\$190	\$210	No
	8.1 (d)	Build a structure	\$100	\$90	\$110	No
	8.1 (e)	Deposit plant or animal material	\$100	\$90	\$110	No
8.1 (f)	Disturb wildlife	\$200	\$190	\$210	No	

<b>Bylaw Notice bylaw citation</b>	<b>Section</b>	<b>Description</b>	<b>A1 Penalty</b>	<b>A2 Early Payment Penalty</b>	<b>A3 Late Payment Penalty</b>	<b>A4 Compliance Agreement Available</b>
<b>Parks Regulations Bylaw No. 1500, 2018 (con't)</b>	8.1 (g)	Feed wildlife	\$500	\$490	\$510	No
	8.1 (h)	Introduce contaminant	\$500	\$490	\$510	No
	8.2	Angle within Cheam Lake	\$100	\$90	\$110	No
	8.3	Angle near or from boat launch	\$100	\$90	\$110	No
	8.5	Deposit on-site refuse	\$100	\$90	\$110	No
	8.6 (a)	Dispose of off-site waste in a park	\$200	\$190	\$210	No
	8.6 (b)	Deposit off-site refuse in park garbage cans	\$100	\$90	\$110	No
	8.7	Traveling in a park where posted notice prohibits travel	\$100	\$90	\$110	No
	9.1	Animal off-leash and/or not under control	\$100	\$90	\$110	No
	9.2 (a)	dog not under control in off leash area	\$100	\$90	\$110	No
	9.2 (b)	Absent leash and/or collar	\$100	\$90	\$110	No
	9.3	Animal in a park where posted notice prohibits animals	\$100	\$90	\$110	No
	9.4	Dog off leash outside of designated off leash areas	\$100	\$90	\$110	No
	9.5	Unauthorized animal	\$100	\$90	\$110	No
	9.6	Fail to remove feces	\$100	\$90	\$110	No
	9.8	Unauthorized horse	\$100	\$90	\$110	No
	10.1	Travel off road	\$200	\$190	\$210	No
	10.2	No licence or registration	\$100	\$90	\$110	No

<b>Bylaw Notice bylaw citation</b>	<b>Section</b>	<b>Description</b>	<b>A1 Penalty</b>	<b>A2 Early Payment Penalty</b>	<b>A3 Late Payment Penalty</b>	<b>A4 Compliance Agreement Available</b>
<b>Parks Regulations Bylaw No. 1500, 2018 (con't)</b>	10.3	Unauthorized parking	\$100	\$90	\$110	No
	10.4	Unauthorized parking in boat launch	\$100	\$90	\$110	No
	10.5	Obstruct park use with motor vehicle	\$100	\$90	\$110	No
	10.6	Parking in front of gate	\$100	\$90	\$110	No
	10.7	Unauthorized parking in designated accessible or emergency personnel parking	\$100	\$90	\$110	No
	10.8	Fail to display pass	\$100	\$90	\$110	No
	10.9	Motor vehicle maintenance	\$100	\$90	\$110	No
	10.10	Motor vehicle in closed park	\$100	\$90	\$110	No
	10.11	Unauthorized use of aircraft	\$100	\$90	\$110	No
	11.1	Operate a vessel in a prohibited area	\$100	\$90	\$110	No
	11.2	Use of vessel to interfere with safe and free use of boat launch	\$100	\$90	\$110	No
	11.3	Mooring of boat in non-authorized area	\$100	\$90	\$110	No
	12.1 (a)	Sale of goods or services	\$100	\$90	\$110	No
	12.1 (b)	Conduct business	\$100	\$90	\$110	No
	12.1 (c)	Advertise	\$100	\$90	\$110	No
	13.1	Prohibited flame	\$100	\$90	\$110	No
	13.3	Excessive fire	\$100	\$90	\$110	No

<b>Bylaw Notice bylaw citation</b>	<b>Section</b>	<b>Description</b>	<b>A1 Penalty</b>	<b>A2 Early Payment Penalty</b>	<b>A3 Late Payment Penalty</b>	<b>A4 Compliance Agreement Available</b>
<b>Parks Regulations Bylaw No. 1500, 2018 (con't)</b>	13.4	Deposit burning substance	\$100	\$90	\$110	No
	13.5	Prohibited flame producing device	\$100	\$90	\$110	No
	13.6	Possession of firearm	\$100	\$90	\$110	No
	13.7	Possession of fireworks	\$100	\$90	\$110	No
	14.3	Fail to provide information	\$100	\$90	\$110	No
	14.4	Motor vehicle without pass	\$100	\$90	\$110	No
	15.2	Fail to obtain permit	\$100	\$90	\$110	No
	15.6	Fail to comply with permit	\$100	\$90	\$110	No
	15.8 (a)	Fail to remove property	\$100	\$90	\$110	No
15.8 (b)	Fail to restore area	\$100	\$90	\$110	No	

**FRASER VALLEY REGIONAL DISTRICT BYLAW NO. 1532, 2019**

**Schedule B  
LAND USE BYLAW CONTRAVENTIONS AND PENALTIES**

1) All bylaw contraventions under the following bylaws may be dealt with by bylaw offence notice:

Dewdney-Alouette Regional District Land Use and Subdivision Regulation Bylaw No. 559-1992
Zoning Bylaw for the Rural Portions of Electoral Area "A", Regional District of Fraser-Cheam Bylaw No. 823, 1989
Zoning Bylaw for the Rural Portions of Electoral Area "B" Regional District of Fraser-Cheam Bylaw No. 801, 1989
Zoning Bylaw for the Community Plan Areas of Electoral Area "B" of the Regional District of Fraser-Cheam. (Bylaw No. 90, 1977)
Zoning Bylaw for Electoral Area "C", 1977 of the Regional District of Fraser-Cheam. (Bylaw No. 85, 1977)
Zoning Bylaw for Electoral Area "D", 1976 of the Regional District of Fraser-Cheam. (Bylaw No. 75)
Zoning Bylaw for Electoral Area "E", 1976 of the Regional District of Fraser-Cheam. (Bylaw No. 66)
Zoning Bylaw for Electoral Area "F", 1978 of the Regional District of Fraser-Cheam. (Bylaw No. 100)
Cultus Lake Park Zoning Bylaw No. 1375, 2016

2) The penalties for any contravention under the above bylaws shall be:

<b>A1 Penalty</b>	<b>A2 Early Payment Penalty</b>	<b>A3 Late Payment Penalty</b>	<b>A4 Compliance Agreement Available</b>
\$200	\$190	\$210	No

To: CAO for the Regional and Corporate Services Committee  
From: Micha Gutmanis, Environmental Services Coordinator

Date: 2019-07-09  
File No: 9010-20

**Subject: FVRD's Corporate Greenhouse Gas Emissions for 2018**

---

## RECOMMENDATION

**THAT** the Fraser Valley Regional District Board accept the 2018 Climate Action Revenue Incentive Report for the Fraser Valley Regional District;

**AND THAT** the Fraser Valley Regional District Board direct staff to report back with a recommendation for specifically allocating the accumulated annual carbon tax refunds towards a cost-effective efficiency upgrade project(s) that will offer significant carbon footprint reductions to the FVRD buildings and/or operations.

## STRATEGIC AREA(S) OF FOCUS

Support Environmental Stewardship  
Support Healthy & Sustainable Community

## PRIORITIES

Priority #2 Air & Water Quality

## BACKGROUND

The BC Climate Action Charter is a provincial initiative that was introduced in September 2007 to encourage local governments to reduce energy and emissions from their operations. Participating local governments, including the Fraser Valley Regional District (FVRD), have voluntarily committed to work towards carbon neutral operations.

As a signatory to the Climate Action Charter, the FVRD is required to report annual results of a greenhouse gas (GHG) emissions inventory and a carbon neutral progress survey to the Province as a part of the Climate Action Revenue Incentive Program (CARIP). Local governments that complete the report are eligible to receive a refund of their carbon tax paid on direct fuel purchases with the intention that these funds go towards greenhouse gas emission reduction initiatives.

## DISCUSSION

Despite several energy reduction initiatives undertaken by the FVRD, GHG emissions kept showing a steady increase between 2012 and 2017 due to continuing expansion of services. This trend changed in 2018 however, in which for the first time, FVRD's corporate GHG emissions showed a decrease (Figure

1). The FVRD’s corporate GHG emissions in 2018 were 624 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e), an 11% decrease from 2017. This is an exciting and encouraging trend that shows progress is being made to achieving carbon neutrality.

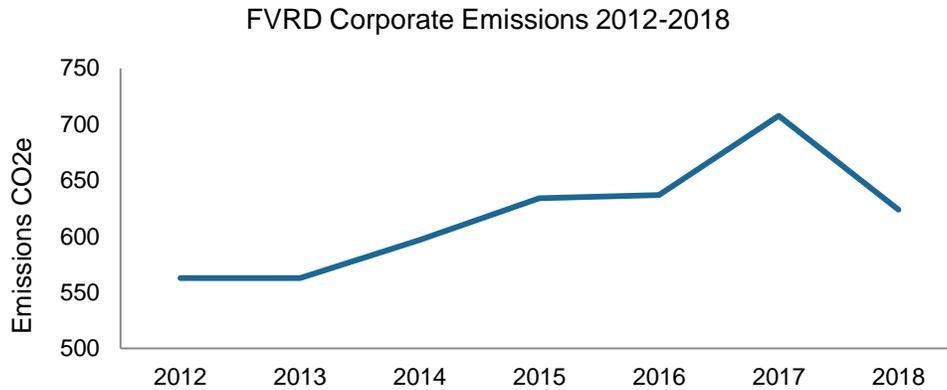


Figure 1: Yearly Corporate FVRD GHG Emissions

Natural gas for heating and hot water has consistently been the biggest GHG contributor (50% in 2017), followed by gasoline and diesel for fleet vehicles (26% combined in 2017). A yearly breakdown of corporate GHG emissions by fuel type can be seen in Figure 2. Reduced use of natural gas was the largest source of carbon reduction by the FVRD in 2018, showing a 37% decrease from 2017. This is likely due to the high efficiency boiler upgrades for the HVAC and installation of an on-demand water system at the main office.

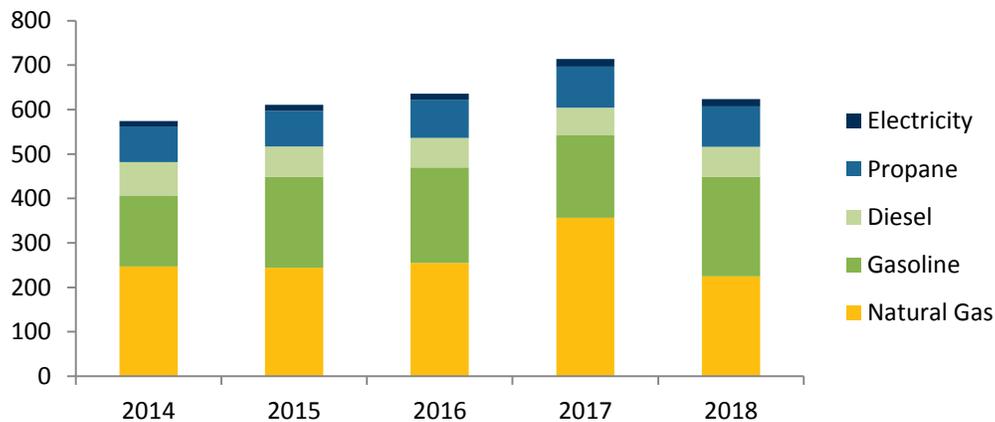


Figure 2: Yearly breakdown of FVRD corporate GHG emissions by fuel type

Despite the decrease in natural gas usage, fleet fuel usage has increased. Gasoline and diesel usage increased by 10% and 2% respectively since 2017; now accounting for 47% of corporate GHG emissions combined. This increase is likely due to the addition of several new fleet vehicles in 2018.

Propane, mostly used in fire departments and the Almer Carlson Pool, is the third largest source of FVRD corporate emissions (14%), and has remained relatively unchanged from last year. Electricity has also remained fairly consistent, and represents approximately 3% of total emissions (Figure 3).

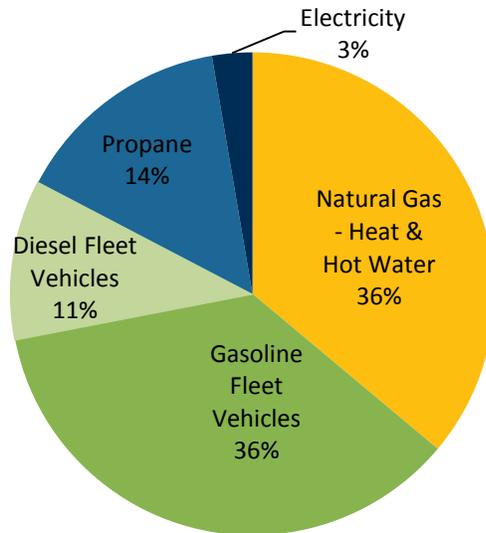


Figure 2: Breakdown of corporate GHG emissions in 2018

The FVRD tracks corporate fuel usage from regular operations; however, contractor fuel usage has been largely unaccounted for. A new fuel tracking policy came into effect in 2018, and fuel usage from third party service providers contracted by the FVRD will be reported next year. This will likely result in an increase in emissions next year, but will more accurately reflect the FVRD's GHG emissions.

Results of the Carbon Neutral Progress Survey demonstrate a wide variety of exciting and innovative efforts being undertaken and proposed by the FVRD to continue reducing GHG emissions. Over 100 specific initiatives, coming from all departments, were documented as part of this process. Some highlights of actions include:

- The FVRD has developed a school program called "Love our Air" - an educational and awareness campaign designed to teach grade 5 and grade 10 students about air quality awareness, local concerns, and how to make day-to-day decisions that will reduce their footprint. The curriculum was provided to 50 schools across the region during the 2018/2019 school year, with another 45 schools planned for 2019/2020.
- The ongoing success of the Fraser Valley Express (FVX) has become a benchmark for interregional service development. The service to include Sundays and Statutory holidays caused ridership to double on weekends since this expansion.
- In partnership with the FVRD, FoodMesh launched a regional food recovery program connecting local farms, charities, and food industry partners to exchange surplus edible food via an online

app/marketplace. The program has helped reduce 190,000 kgCO<sub>2</sub>e (190 tonnes of greenhouse gas emissions) in the process. Current expansion is underway for 2019.

- A regional source separation bylaw was approved in 2018 and will be coming into effect in 2020 which will require all residents and businesses within the region to sort all recycling and organics out of their waste stream.
- Building efficiency upgrades conducted included installing on-demand hot water to improve energy efficiency at the main office.
- The FVRD is working with BC Hydro to install four new High Voltage Utility Connected Level 2 EV chargers for the FVRD's main office.

Additional action items are provided within the attached CARIP Report.

## **COST**

The FVRD is eligible to receive \$19,897 from the Province for the carbon tax paid in 2018.

## **CONCLUSION**

The total amount of corporate emissions listed in this inventory represents a decrease from 2017 inventory levels (decrease of 83.5 tCO<sub>2</sub>e, or 11%). While an increase in fleet vehicles has driven up the greenhouse gas emissions for that category, there have been reductions in other areas, such as natural gas usage, likely due to energy efficiency upgrades that occurred in 2018.

The inventory conducted as part of this survey will serve as a useful and informative benchmark for measuring future years' emissions as the FVRD continues to work towards reducing its carbon footprint. With the action initiatives identified, the FVRD should see a reduction in energy consumption and operating costs in the future, demonstrating the FVRD's commitment to reducing their carbon footprint.

## **COMMENTS BY:**

**Stacey Barker, Director of Regional Services:** Reviewed and supported.

**Mike Veenbaas, Director of Financial Services** Not available for comment.

**Jennifer Kinneman, Acting Chief Administrative Officer :** Reviewed and supported.

# Climate Action Revenue Incentive (CARIP) Public Report for 2018

**Local Government:**

Fraser Valley Regional District



**Report Submitted by:**

**Name:** Micha Gutmanis

**Role:** Environmental Services Coordinator

**Email:** [mgutmanis@fvrd.ca](mailto:mgutmanis@fvrd.ca)

**Phone:** (604) 702-5496

**Date:** 30 May 2019



The Fraser Valley Regional District has completed the 2018 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2018 and proposed for 2019 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality.

## 2018 BROAD PLANNING ACTIONS

### Broad Planning Actions

Broad Planning refers to high level planning that sets the stage for GHG emissions reductions, including plans such as Official Community Plans, Integrated Community Sustainability Plans, Climate Action Plans or Community Energy Emissions Plans. Land use planning that focuses on Smart Growth principles (compact, complete, connected, and centred) plays an especially important role in energy and GHG reduction.

<b>Q 6 + Q 7 Community-Wide Broad Planning Actions Taken in 2018 + Additional Actions</b>	
	The FVRD continued to collaborate on interagency committees (Georgia Basin International Airshed Strategy Coordinating Committee, Lower Fraser Valley Air Quality Coordinating Committee, Agricultural Nutrient and Air Working Group, Air Quality and Health Steering Committee) to share best practices, work collaboratively on reducing emissions of pollutants and GHGs and improving air quality. The FVRD also participates in a new Electric Vehicle Peer Network Group that was created in 2018.
	The draft regional growth strategy is a strategic plan that provides an overarching planning framework for sustainable growth. It considers transit, ecosystem health, energy and climate change, and economic strength and resiliency. As a long range vision with a 20-30 year scope, it aims to ensure the region as a whole is committed to protecting the natural environment through responsibly managed growth.
	The FVRD has continued to work on updating the Air Quality Management Plan which will include plans to reduce GHG emissions in the Region.
	A New Official Community Plan has been drafted for Area D in which the GHG reduction targets mimic the Provincial targets. It also emphasizes trails and parks. This draft is at first reading and will be adopted in 2019.
<b>Q 8 Community-Wide Broad Planning Actions Proposed for 2019</b>	
	The FVRD is currently working on a policy around second dwellings to allow for changes in zoning bylaws and OCPs. This promotes compact communities.
	Finalization and implementation of Regional Growth Strategy. Includes GHG reduction targets. Worked on it in 2018 and plan to complete in 2019
	The FVRD has continued through 2019 to work on updating the Air Quality Management Plan which will include plans to reduce GHG emissions in the Region.
	The FVRD has been amending the Hemlock community plan. It includes transportation, environmental performance of buildings, and greenspace. Stakeholder engagement has been done, and FVRD is now in the drafting phase which will be completed in 2019.

<b>Q 9 + Q 10 Corporate Broad Planning Actions Taken in 2018 + Additional Actions</b>	
	The FVRD has a climate change action policy where geohazard assurance statements need to be provided by engineers for development areas. This policy ensures that engineers have a climate change assessment for potential hazard changes, expected change of slope stability, flooding, seismic and rainfall intensity changes.
	The FVRD participated in the Lower Mainland Flood Management Strategy to address increased Fraser River flood risks as a result of climate change.
<b>Q 11 Corporate Broad Planning Actions Proposed for 2019</b>	
	The FVRD plans to produce a corporate 'Green Initiatives' video which will showcase the green initiatives that we have taken recently.
	The FVRD plans to update its corporate greenhouse gas emissions plan in late 2019/early 2020.
	The FVRD started 'Clean Economy' study in 2018 and it will be completed in 2019. The Clean Economy Report and a Reference Guide will identify and discuss "clean economy" sectors specific to the FVRD region and provide tangible strategies and recommendations to foster its growth. This includes existing sectors, such as agriculture and agriculture related industries that are undergoing significant technological change. The objectives of this report are to help the FVRD understand the nature of the "clean economy" in the region, identify supportive policies for FVRD local governments to consider and identify the types of hard and soft infrastructure necessary to support the "clean economy".

<b>Broad Planning</b>	
<b>Q 12 What is (are) your current GHG reduction target(s)?</b>	As outlined in the FVRD's draft Regional Growth Strategy, the FVRD aims for the following GHG reduction targets: reduction in GHG emissions of 20% by 2020 and 50% by 2050 relative to 2007 levels.
<b>Q 13 Are you familiar with your local government's community energy and emissions inventory (e.g. <a href="#">CEEI</a> or another inventory)?</b>	<b>Yes</b>
<b>Q 14 What plans, policies or guidelines govern the implementation of climate mitigation in your community?</b>	
<ul style="list-style-type: none"> <li>• Community Energy and Emissions Plan</li> <li>• Integrated Community Sustainability Plan</li> <li>• Community- Wide Climate Action Plan</li> <li>• Official Community Plan</li> <li>• Regional Growth Strategy</li> </ul>	<b>No</b> <b>No</b> <b>No</b> <b>Yes</b> <b>Yes</b>
<b>Q 15 Does your local government have a corporate GHG reduction plan?</b>	<b>Yes</b>

## 2018 BUILDING AND LIGHTING ACTIONS

### Building and Lighting Actions

Low-carbon buildings use the minimum amount of energy needed to provide comfort and safety for their inhabitants and tap into renewable energy sources for heating, cooling and power. These buildings can save money, especially when calculated over the long term. This category also includes reductions realized from energy efficient street lights and lights in parks or other public spaces.

<b>Q 16 + Q 17 Community-Wide Building and Lighting Actions Taken in 2018 + Additional Actions</b>	
	All new street lighting that needed replacements was with new, energy efficient LED streetlights rather than high-pressure sodium. The LED lights will reduce streetlight energy use, they are longer lasting, and will reduce light pollution.
	Continued distribution of the FVRD brochure on 'Improving Home Energy Efficiency: A Guide for Rural Homeowners in the Fraser Valley', both online and at the front counter.
<b>Q 18 Community-Wide Building and Lighting Actions Proposed for 2019</b>	
	All new street lighting that needs replacements will be with new, energy efficient LED streetlights rather than high-pressure sodium. The LED lights will reduce streetlight energy use, they are longer lasting, and will reduce light pollution.
	In 2019, lighting upgrades will occur for the Hope and Area Recreation Centre swimming pool. The upgrades will provide better lighting for users and will be more efficient.
<b>Q 19 + Q 20 Corporate Building and Lighting Actions Taken in 2018 + Additional Actions</b>	
	The FVRD is currently undertaking a streetlight audit for inventory (count, lighting type, etc). This will help to inform a proper replacement strategy for HPS to LED
	The domestic hot water tanks were taken out at the FVRD head office and replaced with on-demand heating which significantly improve energy efficiency.
	Baker Trails Wastewater Treatment Plant: Changed all lighting to LED and went to automated light switches so that they're only used when needed.
	The FVRD Parks department built a workshop at Island 22 for staff use. It allowed the FVRD to consolidate 5 storage areas from across the region into one place to reduce drive time. This workshop now allows enough space for the FVRD to purchase in bulk which will reduce fuel usage in shipping. The workshop was built with all new LED lighting, automatic lighting shutoff and a low-flow toilet.

	New thermal blankets (pool covers) were installed at the Almerston Carlson Pool in North Bend. This installation will reduce chemical usage and increase energy efficiency by keeping the heat in.
<b>Q 21 Corporate Building and Lighting Actions Proposed for 2019</b>	
	At the new Vedder River Campground, the FVRD plans to install six energy efficient hand dryers.
	The FVRD received funding from BC Hydro to hire an engineering firm to conduct an energy efficiency study at the Hope and Area Recreation Centre. The opportunities for efficiency have been identified and the FVRD is working on grant applications to carry out the recommendations.
	The FVRD is building a new wastewater treatment plant in Cultus Lake (North Cultus Wastewater treatment plant) with all new LED lighting and will be integrated into the SCADA system so that it can be managed remotely, reducing trips to the site. Programming has been written so that it runs optimally and pumps only run when needed.

<b>Building and Lighting</b>	
The Province has committed to taking incremental steps to increase energy-efficiency requirements in the BC Building Code to make buildings net-zero energy ready by 2032. The BC Energy Step Code--a part of the BC Building Code--supports that effort	
<b>Q 22 Is your local government aware of the <a href="#">BC Energy Step Code</a>?</b>	Yes
<b>Q 23 Is your local government implementing the <a href="#">BC Energy Step Code</a>?</b>	No

## P5 2018 ENERGY GENERATION ACTIONS

### Energy Generation Actions

A transition to renewable or low-emission energy sources for heating, cooling and power supports large, long-term GHG emissions reductions. Renewable energy including waste heat recovery (e.g. from biogas and biomass), geo-exchange, micro hydroelectric, solar thermal and solar photovoltaic, heat pumps, tidal, wave, and wind energy can be implemented at different scales, e.g. in individual homes, or integrated across neighbourhoods through district energy or co-generation systems.

<b>Q 24 + Q 25 Community-Wide Energy Generation Actions Taken in 2018 + Additional Actions</b>	
<b>Q 26 Community-Wide Energy Generation Actions Proposed for 2019</b>	

<b>Q 27 + Q 28 Corporate Energy Generation Actions Taken in 2018 + Additional Actions</b>	
	Baker Trails Wastewater Treatment Plant: Switched from diesel to natural gas generation in 2017 and completed in 2018
	The FVRD secured grant funding from Solar Now and hired a contractor to install Solar Panels on the FVRD main office building in 2019. The install is scheduled for April 29 <sup>th</sup> , 2019. The installation will provide clean electricity to the building and reduce utility costs.
	The FVRD commissioned a feasibility study to look at a geothermal heat pump upgrade and heat recovery project at the Hope and Area Recreation Centre. A geothermal heat pump system has the potential to reduce 290 tonnes of CO <sub>2</sub> per year from being emitted into the atmosphere, save energy costs and reduce domestic water usage.
<b>Q 29 Corporate Energy Generation Actions Proposed for 2019</b>	
	The FVRD will apply for a grant to carry out a geothermal heat pump upgrade and heat recovery project at the Hope and Area Recreation Centre. If successful, procurement will start in late 2019.
	The installation of the solar array on the FVRD corporate head office will occur in May 2019.

<b>Energy Generation</b>	
<b>Q 30 Is your local government developing, or constructing a</b> <ul style="list-style-type: none"> <li>• district energy system</li> <li>• renewable energy system</li> </ul>	<b>No</b> <b>Yes</b>
<b>Q 31 Is your local government operating a</b> <ul style="list-style-type: none"> <li>• district energy system</li> <li>• renewable energy system</li> <li>• none of the above</li> </ul>	<b>No</b> <b>Yes</b>
<b>Q 32 Is your local government connected to a district energy system that is operated by another energy provider?</b>	<b>No</b>
<b>Q 33 Are you familiar with the 2018 <a href="#">List of Funding Opportunities for Clean Energy Projects Led by First Nations and Local Governments?</a></b>	<b>Yes</b>

## 2018 GREENSPACE/NATURAL RESOURCE PROTECTION ACTIONS

### Greenspace Actions

Greenspace/Natural Resource Protection refers to the creation of parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites as well as the protection of wetlands, waterways and other naturally occurring features.

<b>Q 34 + Q 36 Community-Wide Greenspace Actions Taken in 2018 + Additional Actions (Q 35 below Q 41)</b>	
	The FVRD continued partnership with the Fraser Valley Watersheds Coalition. In 2018, 13,152 trees and shrubs were planted, 11,273 m <sup>2</sup> of aquatic habitat restored, and 11 regionally based projects.
	The FVRD manages 5 MoTI properties around Hatzic Lake and Lake Errock and developed one into a community park in 2018.
	At Thompson Regional Park, a natural play space playground comprised of natural elements such as logs and sand, as opposed to traditional metal and plastic equipment, was built to encourage children to play. It is nature based and reflective of the surrounding environment.
	At the Animal CARE Centre, the gravel play area for dogs was replaced with real grass.
	Early 2018, the Electoral Area D residents were consulted to help guide the Popkum street tree program for the 450 trees in this community. 60 additional trees were planted in the community in 2018 and the tree species were carefully selected according to the nature of the area.
	The Hope and Area Recreation Centre hosts a community garden supported by the summer program where students are able to grow local food. The Rec Centre added two new plots in the new community garden in 2018.
<b>Q 37 Community-Wide Greenspace Actions Proposed for 2019</b>	
	In 2017, the trail from Lindell Avenue to Maple Bay Campground was completed in south Cultus. This new Lakeside Trail is a 2km recreational trail along south side of the lake which promotes community connectivity. In 2019, this trail will be extended from Sunnyside Campground into Cultus Lake Provincial Park to Jade Bay (2 km).
	The FVRD will be building a playground and community park in Electoral Area D.
	Elbow Creek Trail, located on Crown land in Morris Valley in Electoral Area C adjacent to Eagle Point Community Park has been identified as a new community park.
	Continued promotion and development of the 'Experience the Fraser' initiative which is a contiguous trail system for non-motorized use running along the Fraser River from Hope to the Salish Sea

<b>Q 38 + Q 39 Corporate Greenspace Actions Taken in 2018 + Additional Actions</b>	
	The FVRD installed public signage at Hillkeep Regional Park in the City of Chilliwack to communicate causes of degraded visual air quality and actions to improve it (co-benefit of reducing emissions of air contaminants is typically a reduction in GHG emissions).
	New residential developments including trails to improve community connectivity and greenspace at Aquadel and Minter Gardens. Currently at 3 <sup>rd</sup> reading, is a covenant requiring two trees to remain on each property at the Minter Gardens development.
	A urine diversion toilet was installed in 2018 at the top of Elk Mountain to address environmental damage and enhance user experience in the backcountry. This new outhouse diverts urine (reducing 70% of the volume collected) which significantly reduces the number of helicopter trips to empty the outhouse.
	The FVRD acquired park land from Metro Vancouver which includes Glen Valley Regional Park, Matsqui Trail Regional Park, and the western flank of Sumas Mountain Regional Park.
	The FVRD planted a bigleaf maple in each of the 10 FVRD regional parks to commemorate the FVRD's 50th Anniversary.
	The FVRD made a commitment for the wastewater treatment plant that is being built: for every tree taken down, a new one will be planted within the Cultus Lake Park Board.
<b>Q 40 Corporate Greenspace Actions Proposed for 2019</b>	
	Via funding from the BC Rural Dividend Fund, AdvantageHOPE, the Fraser Valley Regional District, and the Ministry of Transportation and Infrastructure will oversee the completion of the design work for the Experience the Fraser Canyon to Coast Trail on the Bill Hartley Fraser-Hope Bridge and the trail along Hope's waterfront from Water Avenue to Tom Berry Road.
	The outhouse at Mt Cheam needs upgrading, and the FVRD plans to replace it with an outhouse that have urine diversion (reduction of approximately 70% volume).
	Through a Federal Gas Tax Fund (100% funding) a regional approach was started in 2018 that will quantify outdoor recreation sectors in 2019 to fully understand what they mean to the local economy. This information will help to prioritize capital expenditures, inform marketing decisions, and showcase the region as a premier tourism destination.
	The FVRD applied for a grant to build a universally accessible viewing platform at Cheam Lake Regional Park. If successful, this new infrastructure will be built in 2019.
	The community of Hemlock in Electoral Area C wants a trail connecting the residences to Sasquatch Mountain Resort (similar to Whistler Village) to promote walk-ability. Planning is expected to begin in 2019.

<b>Greenspace</b>	
<b>Q 41 Does your local government have urban forest policies, plans or programs?</b>	<b>Yes</b>
<b>Q 35. Does your local government have policies, plans or programs to support local food production?</b>	<b>Yes</b>

## 2018 SOLID WASTE ACTIONS

### Solid Waste Actions

Reducing, reusing, recycling, recovering and managing the disposal of the residual solid waste minimizes environmental impacts and supports sustainable environmental management, greenhouse gas reductions, and improved air and water quality.

<b>Q 42 + Q 43 Community-Wide Solid Waste Actions Taken in 2018 + Additional Actions</b>	
	In partnership with the FVRD, FoodMesh launched a regional food recovery program connecting local farms, charities, and food industry partners to easily exchange surplus edible food via an online app/marketplace. 61 local FVRD businesses and charities have so far joined the network and helped divert 100,000 kg of surplus food to users who can find needs for it. This is the equivalent of over 165,000 meals valued at \$565,000. A retail food recovery pilot project was initiated by Foodmesh with Save On Foods in November in the City of Chilliwack. Three local stores diverted all surplus food for three months donating 59,000 kg to the local food bank which was then redistributed to local charities in need of food for their programs and users. Left-over food was used by local farmers for animal feed and a very small percentage went to composting operations. The success of this project has resulted in Save On Foods rolling out the program in 100 of their 170 stores in BC and looking to expand it to all their western operations across Canada. The Food Recovery program helps organizations recover costs and increase margins by matching overstocked food with businesses and charities, reducing food waste, providing meals and within the FVRD it has helped reduce 190000 kgco2e, that's 190 tonnes of greenhouse gas emissions in the process.
	Implementation of the FVRD Solid Waste Management Plan including policies relating to the establishment of organics separation, increased recycling, promoting reuse, and reducing operation-related GHG emissions.
	A regional source separation bylaw was approved in 2018 and will be coming into effect in 2020 which will require all residents and businesses within the region to sort all recycling and organics out of their waste stream.
	The FVRD supported Household Hazardous Waste day in Mission and Chilliwack, Illegal Dumping clean-up events, and Waste Reduction Month across multiple communities.

In 2018 the Fraser Valley Regional District hosted the Southern Interior Waste Manager’s Association annual conference. Over 70 waste professionals from Local, Regional and Provincial government convened in Harrison Hot Springs together with First Nations representatives, private sector operators and consultants. Solid Waste and First Nations opportunities were discussed which included Extended Producer Regulations and recent updates to plans. Visits to local facilities included touring Fraser Valley Biogas anaerobic digester, an electronic recycling unit in Chilliwack (eCycle Solutions) and Redux Nutrition where food waste is converted to animal feed. The final morning allowed local programs such as illegal dumping campaigns, mixed waste processing, and a new mattress recycling facility to be discussed.

**Q 44 Community-Wide Solid Waste Actions Proposed for 2019**

	<p>FoodMesh and the FVRD have extended the program throughout 2019. The goal is to divert a minimum of 250,000 kg of surplus food, equivalent to 470,000 kgco2e. If external funding sources are found the second option is to aim for 1.5 million kg of surplus food, equal to roughly 2,850,000 kgco2e reduced.</p>
	<p>As the new bylaw for source separation was passed at the FVRD Board level an outreach campaign is being put together to reach out to all previous consultees in the consultation phases. The outreach campaign will concentrate on spreading information to the industrial, commercial and institutional sector about the forthcoming changes in 2020 and how they together with the waste management industry can prepare for this. Educational and promotional materials have been produced, which are available through our <a href="http://www.BeWasteWise.ca">www.BeWasteWise.ca</a> website. All residential sectors will also be targeted in phases together with local government partners.</p>
	<p>The FVRD will continue to support Household Hazardous Waste day in Mission and Chilliwack, Illegal Dumping clean-up events, and Waste Reduction Month across multiple communities.</p>
	<p>The FVRD plans on supporting a Repair café for textiles and potentially electronic items as well as promoting the national ‘Love Food, Hate Waste’ campaign.</p>
	<p>The FVRD will support the Tire Stewardship roundup event in Abbotsford and Mission in 2019.</p>

**Q 45 + Q 46 Corporate Solid Waste Actions Taken in 2018 + Additional Actions**

	<p>The FVRD had a feasibility and impact assessment analysis carried out for an advanced recycling centre or mixed waste materials recovery process in the region to further divert more recyclable and compostable material from the garbage stream. It will conclude in 2019. This is a key component of the FVRD Solid Waste Management vision to bring the region closer to zero waste.</p>
	<p>The Boston Bar Landfill has planning underway to officially close it by having it capped and monitored for leachate generation. The design was initiated in 2018 and will be completed in 2019.</p>
	<p>The Province of BC donated 25 double bear-proof bins (compost &amp; recycle) to the FVRD for use in its parks and campground.</p>
	<p>The FVRD uses compostable cutlery and plates rather than plastic, and when possible, uses glasses and mugs that can be washed.</p>

<b>Q 47 Corporate Solid Waste Actions Proposed for 2019</b>	
	Updates in Sunshine Valley and Hemlock Valley Transfer stations and the Chaumox Road Landfill will take place in 2019 to add the capacity to take organic materials.
	Upgrades to the Hemlock Valley Transfer Station will include a manned station which will reduce the frequency of pickups required. Therefore, they will not have to haul empty bins anymore.
	The FVRD will be developing a storm water management plan at Chaumoix Landfill. The goal is to reroute all surface water near the landfill to avoid leachate to mitigate potential future issues.
	The FVRD is looking to partner with local First Nation communities for yard waste and organics processing facilities.
	The Hope Rec Centre will look into adding more of the four-bins (compost, recycle, bottles, garbage) around the Centre. Better signage will also be considered to ensure waste is being disposed of properly.
	The FVRD is developing a corporate solid waste management plan for the Vedder River Campground to try to make the campground as zero-waste as possible.

<b>Solid Waste</b>	
<b>Q 48 Does your local government have construction and demolition waste reduction policies, plans or programs?</b>	<b>No</b>
<b>Q 49 Does your local government have organics reduction/diversion policies, plans or programs?</b>	<b>Yes</b>

## 2018 TRANSPORTATION ACTIONS

### Transportation Actions

Transportation actions that increase transportation system efficiency emphasize the movement of people and goods, and give priority to more efficient modes, e.g. walking, cycling and public transit, can contribute to reductions in GHG emissions and more livable communities.

<b>Q 50 + Q 51 Community-Wide Transportation Actions Taken in 2018 + Additional Actions</b>	
	In 2018, FVRD and BC Transit focused efforts on improving ridership by the implementation of marketing initiatives. The ongoing success of the Fraser Valley Express (FVX) has become a benchmark for interregional service development. The service to include Sundays and Statutory holidays was completed and ridership on weekends has doubled since this expansion. Immediate take-up with a 92% increase in ridership reflects the demand for the service.

	The FVRD and BC Transit launched a new transit service, Route #22, between Hope and Agassiz in 2017 where riders can transfer to the Route #11 for travel into Chilliwack. A bus stop in the Chawathil First Nation community was included in 2018.
	The FVRD continued to promote bike to work week and bike commuter challenges.
	Rehabilitation of the Island 22 Regional Park boat launch took place in 2018. A new entrance and exit was built for enhanced traffic flow, reduce idling, and better positioning of amenities. Further improvements are proposed for 2019 which includes building a staging area where boats can pull over and turn off their engines on the side rather than idling in the loading area.
	The FVRD launched 'My FVRD' online so that dog licence renewals, utilities invoices, transit passes, bylaw tickets can all be paid online and registration for recreation classes can also be booked online. This significantly reduces the number of trips to the FVRD office, especially for those living far away.
<b>Q 52 Community-Wide Transportation Actions Proposed for 2019</b>	
	Work with BC Transit to finalize the Transit Future Action Plan to FVRD Services.
	The FVRD will promote bike to work week and bike commuter challenges again in 2019.
	The FVRD is planning on carrying out an electric vehicle gap analysis and study to identify gaps in electric vehicle charging locations in the region.
	The FVRD will continue to promote Emotive – the electric vehicle experience campaign. This campaign brings electric vehicles to events throughout the region to show residents how great electric vehicles are to drive. An Emotive booth was set up at key events in the region in 2018, such as the Abbotsford Airshow and the Agassiz Fall Fair and Corn Festival and will repeat again in 2019.
	Further boat launch improvements are proposed for 2019 which includes building a staging area where boats can pull over and turn off their engines on the side rather than idling in the loading area.

<b>Q 53 + Q 54 Corporate Transportation Actions Taken in 2018 + Additional Actions</b>	
	Installation of new SCADA systems at North bend Sewer (completed in 2019), Cultus Lake and the Parkview Water System to allow for remote monitoring and less frequent in-person visiting (less driving).
	Conducted an energy audit of FVRD fleet vehicles, which will help guide the new purchase of fleet vehicles. The audit includes suggestions such as replacing gas powered vehicles with electric vehicles.

	The planning department has improved their website page and has expanded capacity to respond to property and development inquiries by phone or email to reduce trips to the FVRD. The capacity to respond to inquiries by phone or email has been increasing each year.
	An electric vehicle was provided to staff at the Hope Recreation Centre for the summer months when the Almers Carlson Pool is open. It was used every day of the week for 3.5 months, to drive 220km per day. A Chevrolet Bolt was used rather than a Ford Ranger to make this daily trip. This will occur again in 2019.
	The FVRD implemented a policy for tracking fuel consumption of contractors to get a better understanding of usage with opportunities to select more fuel efficient contractors in the future. The policy was approved by the Board in 2018 and has started to be implemented within procurement.
<b>Q 55 Corporate Transportation - Actions Proposed for 2019</b>	
	The FVRD is working with BC Hydro to get four new High Voltage Utility Connected (HVUC) Level 2 EV chargers.
	Service on route #22 (Hope), and route #11 (Agassiz-Harrison) is being monitored and further expansion will be considered as demand for transit increases. Planning will begin on a new route connecting the communities on the north side of the Fraser River between Agassiz and Mission.
	A feasibility study will be conducted in the North Fraser Valley between Mission and Maple Ridge with regards to providing transit service. The timing of this study will be dependent on BC Transit's 2019 work plan and their capacity for undertaking additional planning initiatives.
	The FVRD will be buying a smaller fuel efficient truck (2019 Ford Ranger) to replace an old inefficient 2014 F-150.
	The FVRD will be implementing a training program for all new onboard staff members to learn about how to use the corporate electric vehicles. This initiative is designed to reduce anxiety around using EVs and encourage their use for meetings. For existing staff members, EV101 workshops and incentives such as prizes may be used to encourage use of EVs.

<b>Transportation</b>	
<b>Q 56 Does your local government have policies, plans or programs to support:</b>	
<ul style="list-style-type: none"> <li>• Walking</li> <li>• Cycling</li> <li>• Transit Use</li> <li>• Electric Vehicle Use</li> <li>• Other (please specify)</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<b>Q 57 Does your local government have a Transportation Demand Management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behaviour)?</b>	<b>No</b>
<b>Q 58 Does your local government integrate its transportation and land use planning?</b>	<b>No</b>

## 2018 WATER AND WASTEWATER ACTIONS

### Water and Wastewater Actions

Managing and reducing water consumption and wastewater is an important aspect of developing a sustainable built environment that supports healthy communities, protects ecological integrity, and reduces GHG emissions.

<b>Q 59 + Q 60 Community-Wide Water and Wastewater Actions Taken in 2018 + Additional Actions</b>	
	Water conservation and groundwater protection brochures were distributed to residents with new water meter systems.
<b>Q 61 Community-Wide Water and Wastewater Actions Proposed for 2019</b>	
	The Lower Mainland Flood Management Strategy (LMFMS) is developing a "Lower Fraser River Hydraulic Model". The FVRD is on the technical advisory committee for this project. The model is being developed in support of multiple objectives- including the development of flood maps, support stakeholder and public engagement in understanding flood hazards and trade-offs between different types of options to reduce flood damages. This work will be completed in 2019.
	A farm-level flood mitigation, preparedness and recovery toolkit will be created from the Climate Action Initiative Project which the FVRD contributes to. The FVRD will support the development of 1-2 fact sheets that are specific to the FV flood context, all others will be relevant to FV producers but will broadly apply to all producers across BC.
<b>Q 62 + Q 63 Corporate Water and Wastewater Actions Taken in 2018 + Additional Actions</b>	
	The FVRD installed a new sewage treatment system at Baker Trail Estates. The new system will decrease the amount of required maintenance and will operate more efficiently. It also reduces hydro consumption.
	Integration of Parkview and Cultus Lake Park water system was completed in 2018, which eliminated two pumps and one reservoir site. Upgrade Cultus Lake Park water system at Sweltzer Creek crossing.
	The FVRD installed the Lake Errock water main, no pumps required in 2018. The install eliminates single resident backyard booster pumps.
	The FVRD built sewage treatment plants in 2018 which will be in operation in 2019. The Aquadel and Minter Gardens sewage treatment plants were being installed for new developments and are being built to a Class A standard under the municipal waste water regulation.

	The FVRD installed a 1.5 km watermain on Sylvester Rd by directional drilling rather than trenching with an excavator. A drill rig was used so that there was less ground disturbance.
<b>Q 64 Corporate Water and Wastewater Actions Proposed for 2019</b>	
	Water main installation in Area F will take place in 2019 with directional drilling due to salmon bearing streams.
	Continue to Perform Water Audits of systems with newly installed water meters (almost all FVRD systems are now metered) to determine accuracy of meters and to find potential system leakages.
	Dewdney Area Improvement District (dyking and flood protection for Hatzic Lake and Hatzic Prairie) will be dissolving and the FVRD will be taking over their services. The FVRD will undertake all technical work required by the Province. A hydrology study is taking place at Hatzic Lake and in 2019 the FVRD will do water quality monitoring and testing.
	Continuation of Sewer Gap study, including where there are needs for upgrades, monitoring systems, and improved operation efficiencies. Implementation of the recommendations of the study ongoing to 2020. This is being implemented every time a development application is made. It requires the highest level of sewage treatments which reduce nitrogen and phosphorous.
	The FVRD is working on a biosolid management plan to deal with sludge from wastewater treatment plants. The end goal is to dispose of it locally rather than shipping it out of the region.

<b>Water Conservation</b>	
<b>Q 65 Does your local government have water conservation policies, plans or programs?</b>	<b>Yes</b>

## 2018 CLIMATE CHANGE ADAPTATION ACTIONS

This section of the CARIP survey is designed to collect information related to the types of climate impacts local governments are experiencing and how they are being addressed.

<b>Q 66 Please identify the THREE climate impacts that are most relevant to your Local Government.</b>	
<ul style="list-style-type: none"> <li>• Warmer winter temperatures reducing snowpack</li> <li>• Changes to temperature and precipitation causing seasonal drought</li> <li>• Heatwaves impacting population health</li> <li>• <b><u>Increased temperatures increasing wildfire activity</u></b></li> <li>• <b><u>Increased temperatures affecting air quality</u></b></li> <li>• Changing temperatures influencing species migration and ecosystem shifts</li> <li>• Changing temperatures influencing ecosystem shifts</li> <li>• <b><u>Extreme weather events contributing to urban and overland flooding</u></b></li> <li>• Sea level rise and storms causing coastal flooding and/or erosion</li> </ul>	   ✓ ✓   ✓

Other (please specify):	
<b>Q 67 In 2018 has your local government addressed the impacts of a changing climate using any of the following?</b>	
Risk and Vulnerability Assessments	Yes
Risk Reduction Strategies	Yes
Emergency Response Planning	Yes
Asset Management	Yes
Natural/Eco Asset Management Strategies	Yes
Infrastructure Upgrades (e.g. stormwater system upgrades)	Yes
Beach Nourishment Projects	No
Economic Diversification Initiatives	No
Strategic and Financial Planning	Yes
Cross-Department Working Groups	Yes
Official Community Plan Policy Changes	Yes
Changes to Zoning and other Bylaws and Regulations	Yes
Incentives for Property Owners (e.g. reducing storm water run-off)	No
Public Education and Awareness	Yes
Research	Yes
Mapping	Yes
Partnerships	Yes
Other (please specify):	

<b>Q 68 Climate Change Adaptation Actions Taken in 2018</b>	
Please elaborate on key actions and/or partnerships your local government has engaged in to prepare for, and adapt to a changing climate. Add links to key documents and information where appropriate.	
	The FVRD contributed to a Climate Action Initiative for a freshet flood project. FVRD staff currently sits on a committee that oversees the various projects. Helping agriculture adapt to climate change and flooding was explored.
	The FVRD participated and continues to participate in the Lower Mainland Flood Management Strategy (FBC) to address increased Fraser River flood risks as a result of climate change.
	The FVRD cleaned out Rexford Creek sediment trap so that the dykes could maintain freeboard for flood prevention. Ongoing dyke maintenance occurred.
<b>Q 69 Climate Change Adaptation Actions Proposed for 2019</b>	
	The FVRD will be organizing creek cleanouts at Frost Creek and Elbow Creek to remove gravel from sediment traps in order for the dykes to maintain freeboard. This is a flood prevention strategy.

	With provincial funding, the FVRD will invest \$10.5 million to improve the Nickomen Island Dyke and upgrade the pumps. Designing for the upgrades occurred in 2018 and continues into 2019. The upgrades will both protect the community from high water and will improve capacity to move the water out when it gets in.
<b>Q 70 For more information please contact</b>	
	Environmental Services Coordinator <a href="mailto:environment@fvrd.ca">environment@fvrd.ca</a> 604-702-5000

<b>Q 71. The following are key resources that may be helpful to your local government in identifying climate impacts, as well as, strategies, actions and funding to deal with them. For those resources that you have used, please indicate whether they were useful in advancing your work in climate change adaptation?</b>	
<a href="#">Indicators of Climate Change for British Columbia</a> <a href="#">Plan2Adapt</a> <a href="#">Climate Projections for Metro Vancouver</a> <a href="#">Climate Projections for the Capital Region</a> <a href="#">Climate Projections for the Cowichan Valley Regional District</a> <a href="#">Province of BC's BC Adapts Video Series</a> <a href="#">Preparing for Climate Change: Implementation Guide for Local Governments</a> <a href="#">Public Infrastructure and Engineering Vulnerability Committee's (PIEVC)</a> <a href="#">Sea Level Rise Adaptation Primer</a> <a href="#">BC Regional Adaptation Collaborative Webinars</a> <a href="#">Retooling for Climate Change</a> <a href="#">Water Balance Model</a> <a href="#">Water Conservation Calculator</a>  Funding: <a href="#">National Disaster Mitigation Program (NDMP)</a> <a href="#">Community Emergency Preparedness Fund (CEPF)</a> <a href="#">Municipalities for Climate Innovation Program (MCIP)</a> <a href="#">Climate Adaptation Partner Grants (FCM)</a> <a href="#">Infrastructure Planning Grants (MAH)</a> <a href="#">Federal Gas Tax Fund</a>	Useful Haven't Used Useful Haven't Used Haven't Used Haven't Used Useful Haven't Used Useful Useful Haven't Used Useful Useful  Haven't Used Useful Useful Useful Useful Useful
<b>Other:</b> Climate Projections for Fraser Valley Regional District	Useful

## 2018 OTHER CLIMATE ACTIONS

### Other Climate Actions

This section provides local governments the opportunity to report other climate actions that are not captured in the categories above.

Q 72 Community-Wide Other Actions Taken in 2018	
	The FVRD created an air quality and climate change education program in 2017 for elementary and secondary students, designed to raise awareness of what causes air quality issues and climate change, and what actions can be taken. This successful and highly sought after program was implemented in 2017 and continues into 2019.
	The FVRD continued to administer the Provincial Wood Stove Exchange Program to encourage residents to retire their old inefficient wood burning appliance for a new EPA certified wood, gas, pellet, or electric heat pump appliance. This program is designed to improve air quality in the FVRD’s sensitive airshed.
	The FVRD has a 'good neighbour' practice for land development, which discourages burning and promotes chipping and grinding. This is a board policy and is now being used.
Q 73 Corporate Other Actions Taken in 2018	
	A fuel tracking policy for contractor’s fuel usage was approved in 2018. Contractor fuel usage will be tracked and reported in 2020 and beyond to better account for GHG emissions.

Other	
Q 74 Are you familiar with the <a href="#">Community Lifecycle Infrastructure Costing Tool (CLIC)</a> ?	Yes
Q 75 Is your local government using the <a href="#">CLIC</a> tool?	No

## INNOVATION AND PEER-TO-PEER LEARNING

### Innovation

This section provides the opportunity to showcase an innovative *Corporate and/or Community-Wide* GHG reduction and/or climate change adaptation activity that your local government has undertaken and that has had, or has the potential to have, a significant impact. You are welcome to highlight an action that has already been listed.

Projects included here may be featured as success stories on the [B.C. Climate Action Toolkit](#) and/or shared with other local governments to inspire further climate action. Please add links to additional information where possible.

Communities that have conducted innovative initiatives may want to consider making applications to [CEA’s Climate and Energy Action Awards](#), [FCM Sustainable Communities Awards](#) or to [FCM’s National Measures Report](#).

### Q 76 Community-Wide Innovation Action

#### FoodMesh:

In partnership with the FVRD, FoodMesh launched a regional food recovery program connecting local farms, charities, and food industry partners to easily exchange surplus edible food via an online app/marketplace. 61 local FVRD businesses and charities have so far joined the network and helped divert 100,000 kg of surplus food to users who can find needs for it. This is the equivalent of over 165,000 meals valued at \$565,000. A pilot project was initiated by Foodmesh with Save On Foods in the City of Chilliwack. Three local stores diverted all surplus food for three months donating 59,000 kg to the local food bank which was then redistributed to local charities in need of food for their programs and users. Left-over food was used by local farmers for animal feed and a very small percentage went to composting operations. The success of this project has resulted in Save On Foods rolling out the program in 100 of their 170 stores in BC and looking to expand it to all their western operations across Canada. The Food Recovery program helps organizations recover costs and increase margins by matching overstock food with businesses and charities, reducing food waste, providing meals and in within the FVRD it has helped reduce 190000 kgco2e (190 tonnes of greenhouse gas emissions).

#### Air Quality Education Program:

One of the objectives of the Fraser Valley Regional District’s air quality portfolio is to increase public education and awareness of air quality in the region. Public education outreach effort was largely enhanced through the 2017 launch of the well-received school program called “Love Our Air” and continuation in 2018.

Within the last few years, the BC Ministry of Education has set new education standards for students in grades K-12. The FVRD saw this curriculum change as an opportunity to increase air quality education in classrooms while teachers searched for a way to align their lessons with the new curriculum. The lessons within the new ‘Love Our Air’ teacher resource introduces students to issues regarding air quality in the region. The lessons are designed for grades 5 and 10 classrooms and linked to the BC Curriculum. The main objectives of teaching Air Quality in grades 5 and 10 are to develop students’ personal and social awareness of their roles and responsibilities with respect to the environment, and their ability to make decisions about ways to reduce pollution through their everyday actions. The lessons include hands-on activities while teaching students the relevance of air quality in their own lives, in their community and in the wider world. Students learn to identify types of air pollutants, their sources and impacts, as well as possible actions and solutions that they can take as individuals, or with their community.

### Q 77 Corporate Innovation Action

The FVRD is participating in a High Voltage Utility Connected (HVUC) Level 2 Electric Vehicle Charging Demonstration in partnership with BC Hydro and Natural Resources Canada. The FVRD will have 8 new HVUC level 2 chargers installed in the region in 2019. In this project, the transformer would be integrated into the charger, which will eliminate the need for the designated transformer reducing space requirements in the meter room, reduce the number of conduits and wiring, improve the EV charger system’s performance and reliability, while also reducing costs. A smart utility meter will be integrated into the charger to allow for individual metering and billing, as well as remote monitoring. This project aims to reduce barriers to EV uptake by Canadians living in MURBs, as well as aid EV charger installations in commercial and municipal buildings.

**Q 78 For more information on actions described above contact**

Micha Gutmanis, Environmental Services Coordinator  
[mgutmanis@fvrd.ca](mailto:mgutmanis@fvrd.ca)  
 604-702-5496

**Programs, Partnerships and Funding Opportunities**

Local governments often rely on programs, partnerships and funding opportunities to achieve their climate action goals. Please share the names of programs and organizations that have supported your local government’s climate actions by listing each entry in the box below separated by a forward slash (e.g. program1/program2).

**Mitigation**

**Q 79 Mitigation Programs, Partnerships and Funding**

The Fraser Valley Regional District received funding for a solar panel project through Solar Now. Solar Now seeks to engage Canadians in the rapidly expanding global solar energy movement. Solar systems will be installed on prominent public sites in British Columbia communities, including municipal buildings, schools, libraries, community centres, and vehicle charging stations, to provide citizens with a tangible experience with solar power. Solar Now will translate this infrastructure into a communications opportunity, demonstrating that solar is a viable way to produce energy and take action on climate change. The partners of solar now include: Clean Energy Canada at SFU, the Community Energy Association (CEA), and the North Growth Foundation.

Every year since 2009, the Fraser Valley Regional District has carried out the Wood Stove Exchange Program which is funded through the Province of BC. This year, the rebate for a wood stove exchange has increased from \$250 to \$400, if it is being replaced with a cleaner burning fuel such as natural gas, pellets, or a heat pump.

With funding from the Green Municipal Fund (\$133,200) the FVRD in 2018 and 2019 will report on a feasibility and impact assessment analysis for an advanced recycling centre or mixed waste materials recovery process in the region to further divert more recyclable and compostable material from the garbage stream. This is a key component of the FVRD Solid Waste Management vision to bring the region closer to zero waste. The feasibility study is looking at the potential technology options, diversion rates, amount of waste and interested parties that would be interested in mixed waste materials recovery processing within the region.

## Adaptation

### Q 80 Adaptation Programs, Partnerships and Funding

A partnership between the FVRD and Ecoworks, a wholly owned subsidiary of Mennonite Central Committee BC, successfully secured a \$485,000 Job Creation Partnership program grant from the Employment Program of BC's Community and Partnerships Fund to build out Experience the Fraser Canyon to Coast Trail and Regional Park amenities. These improvements included:

- Island 22 Regional Park, City of Chilliwack – boat launch, bike park, equestrian area improvements, and multi-purpose workshop
- Cheam Lake Regional Park, EA D – rebuild existing viewing platform
- Mission Tree Farm License 26, District of Mission – Experience the Fraser Canyon to Coast Trail

## 2018 CARBON NEUTRAL REPORTING

Local governments are required to report on their progress in achieving their carbon neutral goal under the [B.C. Climate Action Charter](#). Working with B.C. local governments, the joint Provincial-UBCM Green Communities Committee (GCC) has established a common approach to determining carbon neutrality for the purposes of the Climate Action Charter, including a Carbon Neutral Framework and supporting guidance for local governments on how to become carbon neutral.

Prior to completing this portion of the survey, please ensure that you are familiar with guidance available on the [B.C. Climate Action Toolkit website](#), especially the [Workbook](#) and [Becoming Carbon Neutral: A Guide for Local Governments in British Columbia](#).

*Please note: As a result of the BC Recycling Regulation, local governments are no longer required to account for GHG emissions from vehicles, equipment and machinery required for the collection, transportation and diversion of packaging and printed paper, in their annual Climate Action Revenue Incentive Program (CARIP) reports.*

## Reporting Emissions

<b>Q 81 Did your local government measure corporate GHG emissions for 2018?</b>	<b>Yes</b>
<b>Q 82 If your local government measured 2018 corporate GHG emissions, please report the number of corporate GHG emissions from services delivered directly by your local government (in tonnes of carbon dioxide equivalent)</b>	<b>624 tCO<sub>2</sub>e</b>
<b>Q 83 If your local government measured 2018 corporate GHG emissions, please report the number of corporate GHG emissions from contracted services (in tonnes of carbon dioxide equivalent)</b>	<b>624 tCO<sub>2</sub>e</b>
<b>Q 84 TOTAL A: CORPORATE GHG EMISSIONS FOR 2018 (Direct GHGs + Contracted GHGs)</b>	<b>624 tCO<sub>2</sub>e</b>

## Reporting Reductions and Offsets

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions generated in 2018 by one or a combination of the following actions:

- undertake GCC-supported Option 1 Project(s)
- undertake GCC-supported Option 2 Project(s)
- purchase carbon offsets from a credible offset provider

*For more information about options to balance or offset corporate GHG emissions please refer to [Becoming Carbon Neutral: A Guidebook for Local Governments in British Columbia](#).*

If applicable, please report the 2018 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)) being claimed from any of the following Option 1 GHG Reduction Projects:

<b>OPTION 1 PROJECTS</b>	<b>REDUCTIONS</b>
<b>Q 85 Energy Efficient Retrofits (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	
<b>Q 86 Solar Thermal (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	
<b>Q 87 Household Organic Waste Composting (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	
<b>Q 88 Low Emission Vehicles (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	
<b>Q 89 Avoided Forest Conversion (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	
<b>Q 90 TOTAL B: REDUCTIONS FROM ALL OPTION 1 PROJECTS FOR 2018</b>	<b>0 tCO<sub>2</sub>e</b>

**Q 91 If applicable, please report the names and 2018 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO2e)) being claimed from Option 2 GHG Reduction Projects:**

Option 2 Project Name	REDUCTIONS
Option 2 GHGs Reduced (tCO2e)	
Option 2 Project Name	
Option 2 GHGs Reduced (tCO2e)	
Option 2 Project Name	
Option 2 GHGs Reduced (tCO2e)	
Option 2 Project Name	
Option 2 GHGs Reduced (tCO2e)	
<b>Q 92 TOTAL C: REDUCTIONS FROM ALL OPTION 2 PROJECTS FOR 2018</b>	<b>0 tCO2e</b>

**Offsets**

**Q 93 If applicable, please report the name of the offset provider, type of project and number of offsets purchased (in tonnes of carbon dioxide equivalent (tCO2e)) from an offset provider for the 2018 reporting year:**

*NOTE: DO NOT INCLUDE ANY FUNDS THAT MAY BE SET ASIDE IN A CLIMATE ACTION RESERVE FUND.*

Offset Provider Name	OFFSETS
Offsets (tCO2e)	
Offset Provider Name	
Offsets (tCO2e)	
<b>Q 94 TOTAL D: OFFSETS PURCHASED FOR 2018</b>	<b>0 tCO2e</b>

**Q 95 TOTAL REDUCTIONS AND OFFSETS FOR 2018 (Total B+C+D) = 0 tCO2e**

**Corporate GHG Emissions Balance for 2018**

Your local government's Corporate GHG Emissions Balance is the difference between total corporate offsettable GHG emissions (direct + contracted emissions) and the GHG emissions reduced through GCC Option 1 and Option 2 projects and/or the purchase of offsets.

**Q 96 CORPORATE GHG EMISSIONS BALANCE FOR 2018 = (A – (B+C+D)) = 624 tCO2e**

**If your Corporate GHG Emissions Balance is negative or zero,  
your local government is carbon neutral.  
CONGRATULATIONS!**

**Q 97 If your local government was carbon neutral in 2018, please record any emissions reductions you will be carrying over for future years and the source of the reductions, including the year they were earned (e.g. organics diversion, 2018 100 tCO2e)**

SOURCE OF CARRY OVER EMISSION REDUCTIONS (and year earned)	REDUCTIONS
<b>Q 98 BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR</b>	<b>0 tCO2e</b>

Carbon Neutral Reporting	
<b>Q 99 Does your local government set aside funds in a climate reserve fund or similar?</b>	<b>Yes</b>

## GCC CLIMATE ACTION RECOGNITION PROGRAM

### Green Communities Committee Climate Action Recognition Program

The joint Provincial-UBCM Green Communities Committee (GCC) is pleased to be continuing the Climate Action Recognition Program again this year. This multi-level program provides the GCC with an opportunity to review and publicly recognize the progress and achievements of each Climate Action Charter (Charter) signatory.

Recognition is provided on an annual basis to local governments who demonstrate progress on their Charter commitments, according to the following:

**Level 1 – Demonstrating Progress on Charter Commitments:** For local governments who demonstrate progress on fulfilling one or more of their Charter commitments.

**Level 2 – Measuring GHG Emissions:** For local governments that achieve Level 1, and who have measured their Corporate GHG Emissions for the reporting year and demonstrate that they are familiar with their community’s energy and emissions inventory (i.e. CEEI)

**Level 3 – Accelerating Progress on Charter Commitments:** For those local governments who have achieved Level 1 and 2 and have demonstrated undertaking significant action (corporately or community wide) to reduce GHG emissions in the reporting year (e.g. through undertaking a GHG reduction project, purchasing offsets, establishing a reserve fund).

**Level 4 - Achievement of Carbon Neutrality:** For local governments who achieve carbon neutrality in the reporting year.

**Q 100 Based on your local government's 2018 CARIP Climate Action/Carbon Neutral Progress Survey, please check the GCC Climate Action Recognition Program level that best applies:**

<input type="checkbox"/>	Level 1 – Demonstrating Progress on Charter Commitments	
<input type="checkbox"/>	Level 2 – Measuring GHG Emissions	
<input checked="" type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	✓
<input type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	

**Q 101 Related to Level 3 recognition, if applicable, please identify any new or ongoing corporate or community wide GHG reduction projects (other than an Option 1 or Option 2 project) undertaken by your local government that reflects a significant investment of time and/or financial resources and is intended to result in significant GHG reductions:**

<b>PROJECT NAME:</b>
<b>FoodMesh</b> (mentioned above)
<b>Source Separation Bylaw</b> (mentioned above)
<b>Solar Panel Installation on Corporate Office</b> (mentioned above)

To: CAO for the Regional and Corporate Services Committee

Date: 2019-07-09

From: Alison Stewart, Manager of Strategic Planning

File No: 8330-02-03

**Subject: Future Rail Transit in the Fraser Valley**

---

## RECOMMENDATION

**THAT** the Fraser Valley Regional District Board remain focused on its priority of strongly encouraging the province to expedite the widening of Highway 1 to support HOV/bus lanes as a means of improving the viability of transit, improving public safety and supporting the broader Fraser Valley economy;

**AND THAT** the Fraser Valley Regional District Board request that TransLink directly engage the Fraser Valley Regional District, member municipalities, BC Transit and the province on those aspects of the *Transport 2050* Plan that consider inter-regional linkages and policies that may impact this Region.

## STRATEGIC AREA(S) OF FOCUS

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

## BACKGROUND

At the June 11, 2019 Regional and Corporate Services Committee meeting, representatives from the South Fraser Community Rail initiative attended as a delegation to discuss the reactivation of the Interurban Corridor for passenger rail service utilizing hydrogen technology. The Committee resolved “THAT the proposal provided by South Fraser Community Rail with respect to Community Rail South of the Fraser on the Interurban Corridor be referred to staff to report back for further discussion at an upcoming Board meeting.”

## DISCUSSION

With congestion issues on Highway 1, the concept of introducing passenger rail service south of the Fraser River has received a lot of attention recently. South Fraser Community Rail has proposed reactivating the Interurban line between Surrey and Chilliwack at a stated cost of \$12.5 million kilometre (km) or \$1.25 billion.

The FVRD recognizes the efficiency and effectiveness of rapid transit, but the immediate need for Highway 1 improvements should not be overshadowed by the long-term potential for rapid transit. The FVRD and member municipalities are actively engaging the province on urgently needed improvements to Highway 1 to address congestion issues that are increasing economic, social and public safety costs throughout the Fraser Valley. The FVRD's priority remains focussed on the need for the province to expedite its commitments of expanding Highway 1 to include HOV/Bus lanes from 264th to Whatcom Road, and ultimately to Chilliwack.

The broader economic impacts of Highway 1 congestion cannot be ignored. While traffic delays are an inconvenience to commuters, there is a broader economic impact associated with delays. Regular traffic delays can increase the costs of commercial transport, which can translate into increased prices of goods and services. Research has shown that goods transport has less flexibility than commuting in terms of choosing the times and route of travel. This makes it difficult for businesses and truckers to meet delivery schedules and increases business costs. Workers and independent contractors in the Trades also find it increasingly difficult to provide their services to clients in western portions of the Lower Mainland. This is especially relevant to the FVRD where the transportation and construction sectors are significant employers. It is unclear how reintroducing the Interurban line will address these concerns given the nature of this region's labour force and commuting patterns.

Reintroducing passenger rail to the Interurban corridor between Surrey and the City of Chilliwack is not a new proposal. The most recent proposal involves reactivating the Interurban corridor using new hydrogen powered trains currently being implemented in Germany. The \$12.5 million per kilometer "all in" cost provided by the proponents is based on a 2010 Leewood Engineering study and equates to a total of \$1.25 billion for the 100 km route. While the June 11 presentation (Appendix C) stated a number of times that the reactivation of the Interurban passenger rail corridor will be "at NO Cost for its use" in terms of rail access fees, other costs will be involved and it is unclear if the new proposal takes into account annual operating and debt servicing costs or updated land acquisition and infrastructure upgrade costs.

Annual operating costs do not appear to be included in the presentation, but for context, in 2017 TransLink estimates of annual operating costs for the proposed light rail and SkyTrain routes along the Fraser Highway corridor (Surrey-Langley) were projected to be \$18.3 million and \$25.6 million respectively. While not necessarily a representation of potential annual operating costs for the community rail proposal, it does provide some context. More detailed financial analysis, including annual operating cost estimates are needed to fully understand the financial and tax implications of the proposal.

### Interurban Rail Line Route and Potential Station Locations



Source: Strategic Review of Transit in the Fraser Valley, 2010

While hydrogen powered rail is new, reinstating the Interurban rail line is not. It is important to consider the proposal in context of analysis undertaken as part of the “*Strategic Review of Transit in the Fraser Valley*”, (Strategic Review) a 2010 initiative led by the Ministry of Transportation and Infrastructure (MOTI), in partnership with the FVRD, BC Transit and TransLink. This study led to the development of the 2012-2013 Transit Future Plans for Chilliwack and Central Fraser Valley transit systems. At the time of the *Strategic Review* the FVRD was not directly involved in the provision of transit.

In relation to rail, the study assessed:

- Extension of West Coast Express to Abbotsford
- Inter-urban rail line.

The high level cost assessment included:

- Track upgrades (for Interurban, based on 2006 DRL Solutions study)
- Operating costs (operator wages, vehicle maintenance, fuel, administration and other relevant costs)
- Rolling stock
- Cost per ride
- Cost per service hour

The *Strategic Review* concluded that while expanded rail remains a possible feature of the transit system in the Fraser Valley for the long-term, costs were prohibitive in the foreseeable future. The route summary and comparative costs from the Strategic Review report are presented below. Note that this analysis pre-dates the planning and implementation of the Fraser Valley Express.

**Inter-Urban Corridor Summary Features  
(Surrey to Chilliwack)**

Feature	Assumption
Route Length	100 km
Line Time	90 min
Operating Performance	Max operating speed = 60 kph Accel/decel rate = 4 kph/s Station dwell time = 30 sec
Stations	5 between Scott Rd and Langley City 4 between Langley City and Abbotsford Downtown Chilliwack
Frequency	30 min (peak period only) 30 min (60 min off peak)
Annual Service Hours	Peak Period Service - 5,200 hours Daily Service - 13,000 hours
Vehicle Types	Peak Period Service – Diesel multiple unit, heavy rail Daily Service – Diesel multiple unit, light rail

**Economic Evaluation of the Inter-Urban Line  
(Chilliwack to Surrey)**

Corridor Connection	Type of Vehicle	Route Length	Peak Transit Travel Time	2031 Daily Boards	Peak Frequency (off-peak)	Annual Service Hours	Ann Op & Veh Cost	Ann Cap Cost	Cost/Ride (\$)	Cost/Serv Hour
Units		(km)	(min)	(#psgr)	(min)	(hours)	(2031 mil)	(2031 mil)	(2031 \$)	(2031 \$)
<b>Inter-urban Line</b> <i>Chilliwack – Surrey Scott Road Station</i>	Heavy DMU	100	90	3,900	30 (none)	5,200	\$10.3	\$101	\$110	\$21,500
	Light DMU	100	90	6,800	30 (60)	13,000	\$11.5	\$165	\$100	\$13,600
<b>Highway 1</b> <i>Abbotsford-North Surrey 200<sup>th</sup> St</i>	Express Coach Bus	30	35	4,000	10 (20)	25,600	\$3.6	\$3.3	\$5.75	\$270
<b>Fraser Hwy</b> <i>Abbotsford-Langley</i>	Express Coach Bus	32	40	3,800	10 (20)	31,600	\$4.6	\$0.3	\$4.30	\$155
<b>Highway 1</b> <i>Chilliwack – Abbotsford</i>	Express Coach Bus	30	30	800	30 (60)	7,600	\$1.0	\$0.1	\$4.30	\$135

Among other things, the findings estimated that the cost per service hour for a commuter rail service would be significantly higher than most alternatives considered, including a premium bus service in a dedicated lane on Highway 1. It also found that:

“Significant investment is required in the Fraser Valley just to get a desirable level of local, regional and inter-regional transit to move from a \$10 million per year system to almost \$90 million in 2031. The 2031 annual operating and debt service cost for a commuter rail service along the inter-urban line between Abbotsford and Surrey of approximately \$68.9 million would almost equal that of the entire investment required to achieve the [Strategic Review] Vision.”

It is not the intent of this report to judge the merits of the various studies that have been undertaken by government agencies and project proponents. Whatever its form, rapid transit within Metro Vancouver will require support from TransLink. TransLink is currently implementing the Mayor's Council's Vision, which includes rapid transit between Surrey and Langley. At the request of the City of Surrey TransLink is moving away from rail (in this case, light rail) within Surrey and updating the South of Fraser rapid transit strategy to incorporate Sky Train service along the Fraser Highway to the City of Langley.

It is agreed that congestion along Highway 1 is a serious issue and rapid transit in one form or another will be necessary to accommodate future population growth in the Fraser Valley in the long term. For rail transit along the Interurban route to become a reality, a number of questions must be answered:

- Does TransLink support the initiative? It is not currently included in the Mayors' 10 year vision and related investment plans (Note: June 12, 2019 TransLink report does not indicate support).
- Does CP Rail agree with the interpretation of the "Master Agreement" mentioned in the presentation?
- Who would design/build/operate the service?
- Beyond grants from senior governments, how will construction and operation of the service be funded given the FVRD's comparatively small tax base and limited taxing authority? What are the tax implications?
- How would this proposal impact existing and planned municipal conventional transit services in the Fraser Valley?
- What share of FVRD commuters would be served (where people work) and, based on commuting patterns, how many passenger vehicles would be diverted from Highway 1?
- What does the "all-in" cost of \$12.5 million per km include? Does this include land acquisition costs, infrastructure improvements (stations, upgraded crossings, upgraded rail bed/rails, hydrogen production/storage facilities etc), rolling stock (approximately \$8.6 million per unit), annual operating & debt servicing costs?
- Is the Interurban the most efficient and effective route? With Sky Train eventually serving the City of Langley, would continuation of Sky Train to Abbotsford along the Fraser Highway and then on to Chilliwack on either Hwy 1 or the Interurban RoW be a better solution? Are there other solutions, (rail or non-rail) along the Hwy 1 corridor or an extension of the WCE or others?
- How proven is the technology? Are there other, less expensive technologies, or other new technologies on the horizon (eg. autonomous public transit) that can meet the region's needs?

Given these questions, a detailed and up-to-date business case is required to verify the technical requirements and full costs required to build and operate such a system.

The FVRD and local governments recognize the efficiency and effectiveness of rapid transit and are taking steps to realize this long term goal. With FVRD and BC Transit services already interfacing with TransLink services the FVRD is regularly engaged on regional transit issues, including long range planning. The current RGS and draft RGS update supports a region wide transit network that is affordable and convenient. Transit growth in the FVRD, including rail, can be facilitated by the following priorities:

- Expansion of Highway 1 to include HOV/Bus lanes from 264th to Whatcom Road, and ultimately to Chilliwack, creating streamlined transit connections to Skytrain services in Burnaby.

- Work with BC Transit, TransLink, and other regional partners to establish and expand a reliable, accessible and affordable regionally integrated public transit system that links communities both within and outside the region.
- Work with local governments and other stakeholders to set transportation standards and priorities, identify core transit corridors, protect transportation rights of way and explore funding options.
- Encourage the integration of existing railway infrastructure and waterway transportation systems into regional plans.

### **South Fraser Community Rail Delegation Request**

The South Fraser Community Rail delegation has asked that the FVRD Board of Directors by resolution to request that BC Transit Boards of Directors and separately the TransLink Mayor's Council be directed to participate in the South Fraser Community Rail's public engagement process, specifically on the reactivation of the Interurban rail line. In its submission, South Fraser Community Rail has specifically asked:

- "By resolution of the FVRD Board of Directors to meet or write to the B.C. Transit Directors requesting a Public Engagement Process with respect to the Reactivation of the Interurban Corridor specifically. That the community is involved in the makeup of this process so that this process and results will be respected by the communities it serves."
- "By resolution of the FVRD Board of Directors to meet or write to TransLink's Mayor's Council requesting that they become actively involved in this process. If rejected by TransLink that B.C. Transit and the FVRD move forward on an independent Public Engagement Process."

BC Transit does not have a mandate to pursue commuter rail in the Fraser Valley at this time and TransLink has indicated in its June 12, 2019 "*Interurban Passenger Rail*" report that it does not support the South Fraser Community Rail proposal. TransLink has indicated that it will consider the Interurban corridor as part of its *Transport 2050* plan. Rather than supporting the delegation's request it is more appropriate for the FVRD to directly engage TransLink through its *Transport 2050* planning process. Ultimately TransLink and Metro Vancouver communities will bear the majority of the significant costs of such a service.

BC Transit was involved in and supported the findings of the *Strategic Review of Transit* initiative in 2010, which included the fore mentioned assessment of reactivating the Interurban Corridor. Since then BC Transit has undertaken two Transit Future Plans in the region (2012-13) and is currently undertaking Transit Future Action Plans in 2018-2019. Public engagement has been part of that process which has generated conversations about a wide range of transit issues, including for the long term need for rapid transit in the region including the possibility of rail. At this time BC Transit does not have a mandate from the province to pursue rail in the Fraser Valley and any public engagement on such a specific proposal would be premature and will not have been budgeted for.

From a TransLink perspective, on June 12, 2019 TransLink publicly released a report titled “*Interurban Passenger Rail*” providing a high-level assessment of the South Fraser Community Rail proposal. In short, TransLink does not support the proposal as a replacement for already approved rapid transit investments in Metro Vancouver. However, according to the report:

“The concept of using existing rail corridors and infrastructure in the rapidly-growing Lower Mainland is one that TransLink will be exploring through the update to the long-range strategy, *Transport 2050*. *Transport 2050* will examine the long-term demand for improved inter-regional connections between the Metro Vancouver region and the Fraser Valley and examine what corridors could viably serve that demand. TransLink staff have met with proponents of the idea twice in lengthy meetings to hear the proposal and have shared with the group that management will be recommending that the Interurban concept be considered through the *Transport 2050* process.”

Passenger rail service south of the Fraser is desired by many, but it will require very considerable investment by provincial, federal and local governments in both Metro Vancouver and the Fraser Valley to be achieved within the timeframe of current plans. Endorsing a specific transit option without a full assessment of costs (capital and operating), benefits and alternative routes and technologies is not a prudent approach. Long term planning for rapid transit south of the Fraser is necessary and should be undertaken in collaboration with the Province, BC Transit and TransLink.

TransLink’s *Transport 2050* plan was recently initiated with a completion date set for late 2020. While the FVRD, BC Transit and municipalities may be invited to participate in the *Transport 2050* planning process in some capacity, the level of staff or political engagement in the planning process is not clear. TransLink is holding public engagement sessions in several FVRD communities this summer (Appendix B attached), but given the importance of this issue it may be appropriate for the region to formally request that TransLink directly engage the FVRD and member municipalities (and BC Transit) on those aspects of the Plan that could potentially impact FVRD communities.

## **COST**

No cost at this time

## **CONCLUSION**

Passenger rail service south of the Fraser is desired by many, but it will require very considerable investment by provincial, federal and local governments in both Metro Vancouver and the Fraser Valley to be achieved within the timeframe of current plans. The more immediate need to expand Highway 1 to include HOV/Bus lanes from 264th to Whatcom Road, and ultimately to Chilliwack, is a priority.

TransLink has indicated that it will consider the Interurban corridor as part of its *Transport 2050* plan. Rather than supporting the delegation's request it is more appropriate for the FVRD, BC Transit and others to directly engage TransLink through its *Transport 2050* planning process.

What this proposal does bring to light however is that a more comprehensive review of longer-term inter-regional connections is required, but widening Highway 1 remains a priority. Understanding the longer-term potential of alternative means of connecting the Fraser Valley and Metro Vancouver may be addressed by directly engaging with TransLink as part of their *Transport 2050* planning process.

**COMMENTS BY:**

<b>Stacey Barker, Director of Regional Services:</b>	Reviewed and supported.
<b>Mike Veenbaas, Director of Financial Services:</b>	Not available for comment.
<b>Jennifer Kinneman, Acting Chief Administrative Officer:</b>	Reviewed and supported.

**APPENDIX A:** June 12, 2019 TransLink staff *Interurban Passenger Rail* report

**APPENDIX B:** June 25, 2019 e-mail to FVRD regarding *Transport 2050* public engagement sessions in several FVRD communities.

**APPENDIX C:** June 11, 2019 materials provided to FVRD Board by South Fraser Commuter Rail delegation.

**OTHER INFORMATION:**

The *Strategic Review of Transit in the Fraser Valley* report and foundation papers can be found at: <https://www2.gov.bc.ca/gov/content/transportation/transportation-reports-and-reference/reports-studies/transit#fraservalleytransit>.

The rail discussion can be found in: [Foundation Paper #4 Exploring the Possibilities for the Fraser Valley \(PDF, 7MB\)](#) starting on Page 53.

Surrey Rapid Transit Alternatives Analysis: Assessment of the Interurban Corridor, TransLink / MoTI, January, 2012 (attachment to June 12, 2019 TransLink [Interurban Passenger Rail](#) report)

## APPENDIX A

**TO:** Joint Regional Transportation Planning Committee

**FROM:** Geoff Cross, Vice President, Transportation Planning and Policy

**DATE:** June 6, 2019

**SUBJECT:** **ITEM 4.0 - Interurban Passenger Rail**

---

### RECOMMENDATION:

That the Joint Regional Transportation Planning Committee release this report immediately, pending its inclusion in the agenda package for the next meeting of the Mayors' Council.

APPROVED, June 12, 2019

---

### PURPOSE:

To provide the Mayors' Council with information on TransLink staff engagement with a group promoting 'South Fraser Passenger Rail'. The group's proposal includes the reintroduction of community passenger rail service on what is commonly referred to as the 'Interurban line' as an alternative to rapid transit investment. This report provides more information and background on this proposal.

### BACKGROUND:

The rail corridor commonly known as the Interurban line is approximately 100 km of existing rail between Surrey, Langley, Abbotsford, and Chilliwack. The line is currently owned and operated by Canadian Pacific (CP) Railway and Southern Railway (SRY) for freight use.

A number of ideas regarding this line have been shared with TransLink through the years, including recently by a group promoting South Fraser Community Rail. The alignment and connections have been studied previously as part of other processes. All previous assessments have resulted in other priorities being advanced, due to challenges around projected demand, cost relative to bus alternatives, potential conflicts with freight movement, and limited alignment with regional land use plans.

The BC Ministry of Transportation and Infrastructure (MoTI) evaluated the corridor as a potential commuter rail service candidate in their [Strategic Review of Transit in the Fraser Valley in 2010](#). The review noted issues around high cost per ride and low projected ridership relative to bus alternatives. It did note that an inter-regional railway service between the Fraser Valley and Metro Vancouver may be part of a longer-term future, and opportunities should be retained for future services.

As part of the 2010-2012 Surrey Rapid Transit Study, TransLink assessed the Interurban section between Scott Road and Langley to explore merits of utilizing the Interurban corridor for fast, frequent, and reliable rapid transit service compared to Fraser Highway or King George Blvd. The 2012 Surrey Rapid Transit Alternatives Analysis Assessment of the Interurban Corridor study is attached as Appendix A. The Interurban corridor was not selected, nor recommended for further consideration because the corridor:

- does not directly connect relevant regional destinations (i.e. Surrey Central and Langley City),

- resulted in less attractive travel times between key destinations, and
- would require significant capital investments to meet safety requirements and reliability objectives, with resulting costs similar or higher than those along Fraser Highway or King George, but without commensurate benefits.

If there was a request to revisit previous assessment that this corridor could not effectively meet the objectives for rapid transit, the above and other challenges would need to be reviewed in the current context to provide an updated assessment of the transportation performance of the line. TransLink staff have not completed an updated assessment of this idea.

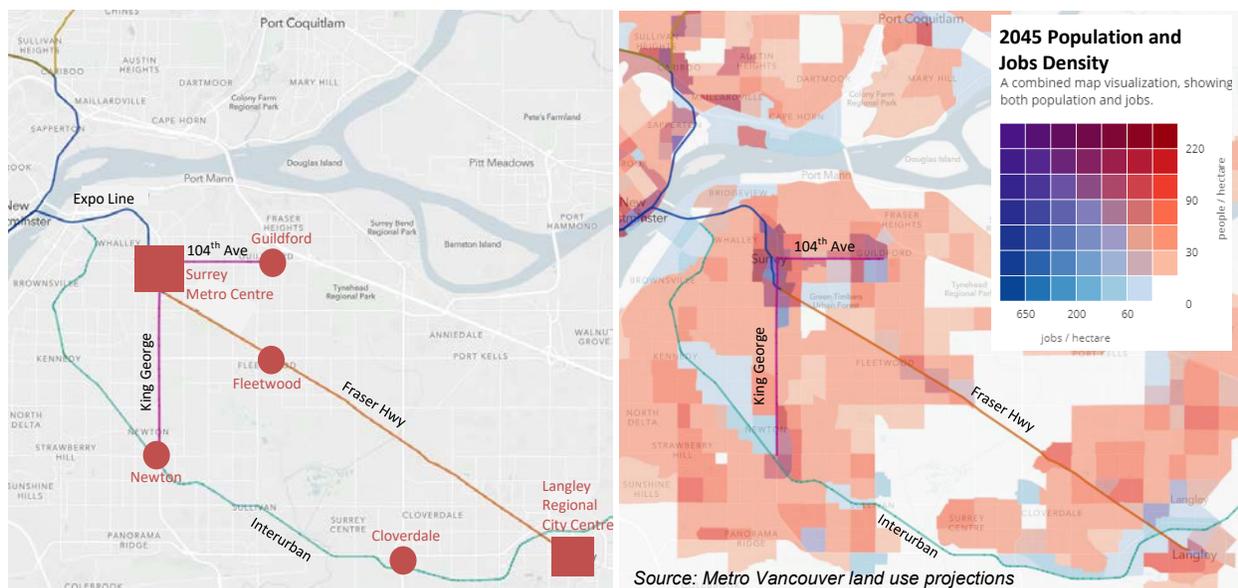
A new element of the Interurban proposal includes the potential use of hydrogen fuel cell trains, as being used in Germany for passenger service. This idea has not been evaluated.

The concept of using existing rail corridors and infrastructure in the rapidly-growing Lower Mainland is one that TransLink will be exploring through the update to the long-range strategy, Transport 2050. Transport 2050 will examine the long-term demand for improved inter-regional connections between the Metro Vancouver region and the Fraser Valley and examine what corridors could viably serve that demand. TransLink staff have met with proponents of the idea twice in lengthy meetings to hear the proposal and have shared with the group that management will be recommending that the Interurban concept be considered through the Transport 2050 process.

**DISCUSSION:**

***Land uses connected by Interurban are not as transit-supportive as those along FH, KGB, 104th:***

The Interurban does not directly connect to the largest regional centre in the South of Fraser – Surrey Metro Centre – which is expected to be the focus of future population and employment growth. While it does connect to other regional centres, including Newton, Cloverdale, and Langley Regional City Centre, the Interurban alignment is indirect and through lower density and diverse areas. Both directness and density are critical factors in the performance of a successful rapid transit corridor. The corridor alignments and projected population and employment densities are presented in the figure below:



Source: Metro Vancouver land use projections

The 2012 Assessment study concluded that land use along the Interurban corridor is lower density, including significant amounts of agricultural lands, resulting in lower potential ridership catchment near stations. Cloverdale is projected to be the one of the slowest growing urban centres in the South of Fraser. Estimates of potential ridership on the Interurban corridor were one-third that of a Fraser Hwy connecting Langley Centre to Surrey Metro Centre, due to the Fraser Highway route having a higher population and employment density and a more direct routing.

***Interurban estimated travel times are not competitive with rapid transit along Fraser Highway or King George Blvd***

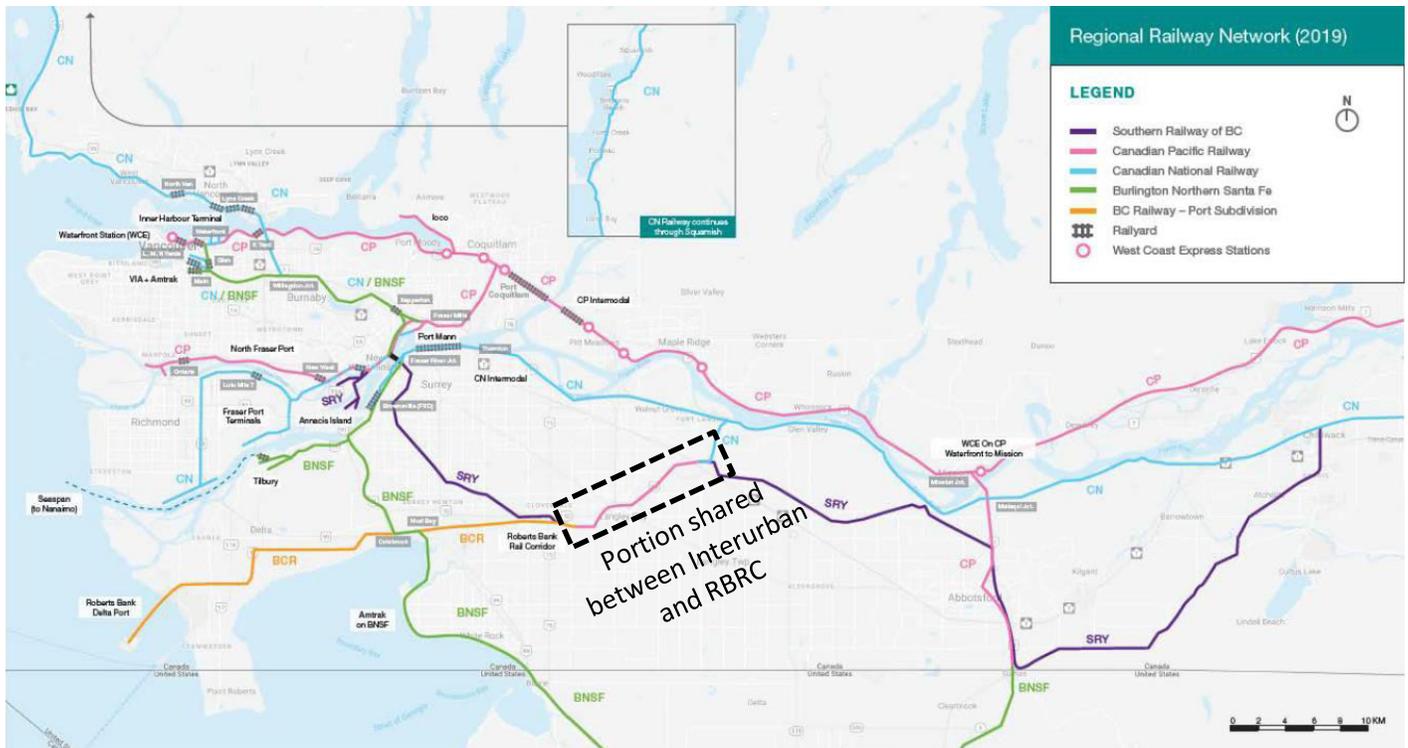
Competitive travel times are important to transit investments, as they are a main factor in successfully attracting ridership. This is particularly important when connecting larger concentrations of people and jobs – such as the Surrey Metro Core and Langley Regional City Centre. When reviewed in the 2012 study, the Interurban was assessed in three segments for comparison with other potential rapid transit connections between urban centres. A summary of estimated travel times, presented below, suggests long travel times between centres along the Interurban corridor due to the less direct route. It was estimated that rapid transit on more direct alignments could achieve in the order of 50% travel time savings depending on segments and technology. Travel time estimates for Langley to Surrey Central from the 2012 studies are presented in the table below:

	Interurban + Expo Line			Rapid Transit Options along Fraser Hwy	
	Distance (Km)	Travel Time (min)		Distance (Km)	Travel Time (min)
Interurban - Langley to Scott Road	27	53	Langley to Surrey Central - BRT or LRT	16	30
Expo Line - Scott Rd to Surrey Ctr. (Includes transfer time)	4	10	Langley to Surrey Central - SkyTrain	16	<25
	31	63			

***Freight volumes are expected to increase along the Interurban corridor***

Port of Vancouver is the largest port in Canada and is one of the drivers of a successful economy in the lower mainland. One of the corridors that has experienced growth in freight movements and is expected to grow is the Roberts Bank Rail Corridor (RBRC) that connects Delta Port with the CN heavy rail network and allows the movement of bulk materials and containers between the Vancouver Gateway and the rest of Canada.

The RBRC utilizes a portion of the Interurban between Cloverdale, through Langley City, and to Hwy 1 near Fort Langley as presented in the figure below:



In the 2012 study, it was estimated that freight service on the RBRC would increase from 9 trains per day in each direction (18 total), ranging in length from 1,830 to 2,900 metres each, to up 28-38 trains per day by 2021, with some train lengths up to 3,660 metres. A 2016 Roberts Bank Trade Area Study confirmed this increased volume is occurring, with 12 trains per day noted. The 2012 Interurban study noted that operating passenger rail on the same tracks as freight would require physical and time separation for both regulatory and safety reasons.

Also, for consideration, there is a proposal to increase the Roberts Bank Delta Port, creating a new a new marine terminal that will create 108 hectares of new industrial land and 1,500 on-terminal jobs. The project is undergoing federal environmental approvals and if successful is expected to be fully operational by the late 2020s (next decade), further increasing utilization of rail for freight.

***Interurban requires substantial infrastructure investments comparable to building rapid transit along urban arterials***

To meet Transport Canada requirements for rail passenger safety, passenger rail vehicles must either be separated from freight train traffic through scheduling, or physically, by constructing separate tracks.

Due to freight traffic throughout the day on the Roberts Bank Rail Corridor, separate rail track would be needed to remove operational conflicts between passenger and freight, to ensure fast, frequent and reliable rapid transit service. While freight operations are less frequent on the SRY Fraser Valley Subdivision, there would still be a need for separate track to ensure reliable and frequent rapid transit service.

The 2012 study identified the following issues associated with construction of new track for passenger operations:

- Environmental Risks A long section of the corridor travels along the Agricultural Land Reserve and the floodplains of the Serpentine River. Adding track would create risks to biodiversity, water resources, and farmlands.
- Constructability Challenges The corridor has numerous challenges related to constructing new track. These include the constrained existing right-of-way, power lines, industrial lead tracks in Langley, grade crossings, narrow bridges, and poor soil conditions. Maintaining existing freight service would likely result in more complex and slower construction. To separate passenger from freight operations (providing reliability and enhancing safety), one grade separation would be required, and this would be in a section of the corridor constrained by existing and planned arterial bridges.
- Cost Constructing additional track and stations, acquiring right of way to add the tracks along the existing Interurban corridor, and overcoming related construction challenges would be costly.

In summary, these findings indicate that operation of passenger rail on this corridor is unlikely to be any easier to implement than on arterial corridors, because providing safe, frequent and reliable service would require construction of separate tracks along the corridor. Given that the construction would likely have similar order-of-magnitude costs to arterial passenger solutions (the range was slightly lower to slightly higher, depending on design), and the lower density land use and ridership potential of the corridor, the benefits of implementing rapid transit on the Interurban corridor were considered insufficient to warrant further consideration as a rapid transit alternative.

***TransLink is committed to delivering the Mayors' Vision, including rapid transit south of the Fraser***

The current regional priority for transit investment South of the Fraser, as set out in the Mayors' Vision, is connecting Surrey Metro Centre with other regionally designated centres via 27 km of rapid transit on Fraser Highway, King George Boulevard, and 104<sup>th</sup> Avenue. These regional priorities are designed to deliver high frequency, high speed and capacity, all-day rapid transit connections between designated town centres within our service region.

Previous assessments have determined that the Interurban line, as a single-track corridor that does not connect to Surrey Metro Centre, does not advance regional objectives as well as other options and as a result, other regional priorities have been advanced. TransLink remains committed to deliver the Mayors' Vision. The South Fraser Community Rail Interurban proposal is not an alternative or comparable option to rapid transit along Fraser Highway based on the objectives set out in the Vision. The historical alignment of the Interurban corridor within Surrey and Langley does not facilitate, quick, direct connections and as a single-track corridor the capacity is too limited for high frequencies. Further analysis would be required to understand the performance of the proposal in the current context of a new regional rail connection.

***Passenger service along the Interurban corridor using hydrogen trains to connect Surrey with Abbotsford and Chilliwack is one of many ideas that will be included as part of Transport 2050***

Transport 2050, the Regional Transportation Strategy update, has been initiated and represents an opportunity to review all bold and creative ideas for transportation in the region, including this one. The first phase of public and stakeholder consultation is now underway, intended to receive big ideas from the region. To ensure we're reaching a range of perspectives, TransLink will be promoting opportunities to get involved through the Lower Mainland, including outside the Metro Vancouver areas. This will include targeted outreach in Abbotsford, Mission, Chilliwack, and Squamish, recognizing the travel patterns outside TransLink's established service area.

South Fraser Community Rail will be considered through the Transport 2050 process. TransLink staff have met with proponents of the proposal and committed to considering it through the process together with other ideas identified through public consultation and technical evaluation. We agree with the group's position that the Fraser Valley municipalities and Metro Vancouver, especially the South of Fraser, will be increasingly integrated in the longer term. Staff will be exploring what that demand could look like and the transportation options are to service it. The Interurban proposal, or elements of it, may have merit in serving and shaping that demand and supporting land uses and will be compared to other approaches.

**NEXT STEPS**

***Mayors' Council and other stakeholders will be updated during the different phases of Transport 2050***

A review of this and other ideas will be included in the evaluation phase of Transport 2050. TransLink staff will likely provide a more comprehensive review of the South Fraser Community Rail proposal at a future Mayors' Council meeting as part of the Transport 2050 process.

**Attachment:** *Surrey Rapid Transit Alternatives Analysis: Assessment Of The Interurban Corridor*, TransLink / MoTI, January, 2012

**Subject:** RE: Transport 2050 Engagement in Your Community

**From:** Government Relations [<mailto:GovernmentRelations@Translink.ca>]

**Sent:** June-25-19 2:56 PM

**Cc:** Government Relations; TransLink T2050

**Subject:** Transport 2050 Engagement in Your Community

Good afternoon,

As you may know, from now through to fall 2020, TransLink is preparing a new Regional Transportation Strategy, Transport 2050. The strategy will identify policies, projects and priorities to be delivered over the next 30 years. In May 2019, TransLink began the first phase of the Transport 2050 engagement process, exploring the values of Metro Vancouver's residents, businesses and agencies, to work towards a shared regional vision.

An increasing number of people from the Sea-to-Sky corridor and the Fraser Valley are travelling into Metro Vancouver to work, study, and play. We want to ensure that Transport 2050 is shaped by all of those who rely on Metro Vancouver's transportation network.

To do this, TransLink is planning on reaching out to residents outside of our service area throughout this engagement process. In Phase 1, which runs to the end of summer, we plan to attend the events listed below to listen to members of your community on what they want from transit and transportation in neighbouring Metro Vancouver, and to hear their bold and creative ideas for the future.

- Farmers Market, Abbotsford                      Saturday, July 13
- Sunset Market in the Park, Mission            Tuesday, July 16
- Party in the Park, Chilliwack                    Friday, July 19
- Squamish Street Market, Squamish            Sunday, August 11

Input from Metro Vancouver residents, as well as those living in surrounding areas like yours, will be used to help TransLink create a new, long-range strategy that will guide TransLink's work through to 2050.

We hope you will join the conversation, to shape the future of how we move and live.

Sincerely,

**STEVE VANAGAS**  
Vice-President  
*Customer Communications & Public Affairs*  
[governmentrelations@translink.ca](mailto:governmentrelations@translink.ca) | [translink.ca](http://translink.ca)

**TransLink**  
400-287 Nelson's Court, New Westminster, BC, V3L 0E7, Canada

[Transport2050.ca](http://Transport2050.ca) | [#Transport2050](https://twitter.com/Transport2050)

This e-mail and any attachments may contain confidential and privileged information. If you are not the intended recipient, please notify the sender immediately by return e-mail, delete this e-mail and destroy any

## APPENDIX C

### **South Fraser Community Rail**

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack”*

*#connect the valley*



# “ The Plan ”





## South Fraser Community Rail

*"Hydrogen iLink Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

Members of the Fraser Valley Regional District Board of Directors,  
Regional & Corporate Services Committee Members,  
45950 Cheam Avenue,  
Chilliwack B.C. V2P 1N6

SFCR Summary / Directory of the Interurban Proposal Report submitted June 11<sup>th</sup>, 2019

The South Fraser Community Rail Committee is pleased to have the opportunity to present our Interurban Corridor Reactivation and to provide a more expanded presentation through the contents of this binder. This Summary / Directory of this presentation Binder.

1. Comprehensive Power Point titled "The Plan" which presents a detailed proposal incorporating the realities of today relating to congestion and impact through to cost and environmental implications, an important and critical element to our communities sustained livability.
  2. A Power Point titled The "Smart and Only" Way to Economically and Environmentally Solve the South of Fraser's Transportation & Transit Deficit – This presentation compares a very similar project "The Scottish Border Rail Project" linking downtown Edinburgh to the rural border country
  3. A quick critique by knowledgeable individuals in the industry reveal what are considered to be errors in the DRL Report of 2006 and the Urban Systems Report of 2009 / 10.
  4. Our SFCR Ridership estimated projections based on actual West Coast Express numbers and what we feel would represent a more accurate number.
- 4a OUR ASK, a solution to our problem does exist.

Sincerely,

  
W.R. (Rick) Green Former Mayor, Township of Langley 2008 - 2011  
Home / Office 604 607-7338 Cell 604 866-5752

[creeksidefarms@shaw.ca](mailto:creeksidefarms@shaw.ca) / [southfrasercommunityrail@shaw.ca](mailto:southfrasercommunityrail@shaw.ca)

On behalf of The South Fraser Community Rail Committee Management Group the Hydrogen iLink Line Founding & Action Group Members: Rick Green, Lee Lockwood, Roy Mufford, Peter Holt, Brit Gardner, John Vissers, Scott Thompson and Tony Edgar

- Professor Condon, University of British Columbia, James Taylor Chair in Landscape Patrick and Liveable Environments.
- Bill Vander Zalm former Premier of the Province of British Columbia 1986 - 1991.

**IMPORTANT NOTE:** Go to the South Fraser Community Rail Website –

[www.southfrasercommunityrail.ca](http://www.southfrasercommunityrail.ca) for a complete description, videos, background and support resource documents in support of this proposal, with much more to come. Check NEWS section!

**Facebook:** [https://www.facebook.com/connectthevalley/?epa=SEARCH\\_BOX](https://www.facebook.com/connectthevalley/?epa=SEARCH_BOX)



## **South Fraser Community Rail**

*"Passenger Rail, Pattullo Bridge to Chilliwack" #connect the valley*

**Press Release – January 6<sup>th</sup>, 2019**

**Professor Patrick Condon and his Masters-of-Urban Design class at the University of British Columbia have under-taken a two-semester long research project titled:**

***Fraser Valley rail-based communities, design for the next million residents!***

***Given current trends, by 2060, there will be more than 1 million new residents and a need for over 500,000 new homes between Surrey and Chilliwack. How will these new South of Fraser citizens get around, where will they live and how will they afford homes for their families?***

***These communities are already choked by congestion and under a cloud of polluted air from car exhausts, and tightly confined by the Agricultural Land Reserve. All South of Fraser communities urgently need to use their land with much greater efficiency, to meet the needs of the future, without adding to the burdens of the present. A new and innovative growth strategy is needed - and soon.***

***Fortunately, the very same rail line that gave birth to this region is still available today. This line seamlessly connects all South of Fraser Communities from Surrey to Chilliwack, is presently well maintained, and available at no cost for community rail. A low-cost solution that avoids the cost and further sacrifice of this region to the ever-greater appetites of the automobile.***

***By designing a sustainable region for hundreds of thousands of new families around a South of Fraser Community Rail Line, can the Lower Mainland find an affordable and enjoyable way out of its transportation and affordability dead end? Professor Patrick Condon of UBC and his 17 Masters Students of their Urban Design Program, working with Valley citizens and stakeholders, will try to illuminate a path forward. This research will be of significant interest to the development community, Municipal Leaders and Municipal Staff throughout the Fraser Valley, Surrey through to Chilliwack.***

**On January 5<sup>th</sup>, 2019 Professor Condon's class of 17 Master-Degree students had a wide-ranging tour of the Fraser Valley with meetings in Langley City, the Township of Langley, Abbotsford and Chilliwack. Representatives of those communities presented their goals related to transportation, housing, jobs as well as information related to rates of growth and constraints on growth. The tour was conducted, supported by community groups from every corner of the region, South of the Fraser. The research is delving into the benefits of activating a state-of-the-art Hydrogen Powered passenger rail service on an existing corridor owned by the public retaining free access. The Hydrogen powered Alstom Coradia iLint was activated in France and Germany in 2018. Canadian technology manufactured in Mississauga Ontario.**

**This project/research was launched in January of this year and will conclude by the end of this year. This final report will be an approx. 180-page book entitled "Reviving Community Rail for a sustainable Fraser Valley". This product will be launched later this year, stay tuned.**

**Contact info: Professor Patrick M. Condon, University of British Columbia, James Taylor Chair in Landscape and Livable Environments - 604 822-9291 Cell 604 788-0747 or p.m.condon@gmail.com**



## South Fraser Community Rail

*"Hydrogen iLink Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

**An Excerpt from your FVRD 2018 CARIP Report shows this initiative would help FVRD qualify for the annual B.C. Climate Action Revenue Incentive Grant!**

### **Q 52 Community-Wide Transportation Actions Proposed for 2019**

Work with BC Transit to finalize the Transit Future Action Plan to FVRD Services.

The FVRD will promote bike to work week and bike commuter challenges again in 2019.

The FVRD is planning on carrying out an electric vehicle gap analysis and study to identify gaps in electric vehicle charging locations in the region.

The FVRD will continue to promote Emotive – the electric vehicle experience campaign. This campaign brings electric vehicles to events throughout the region to show residents how great electric vehicles are to drive. An Emotive booth was set up at key events in the region in 2018, such as the Abbotsford Airshow and the Agassiz Fall Fair and Corn Festival and will repeat again in 2019.

Further boat launch improvements are proposed for 2019 which includes building a staging area where boats can pull over and turn off their engines on the side rather than idling in the loading area.

### **Q 53 + Q 54 Corporate Transportation Actions Taken in 2018 + Additional Actions**

Installation of new SCADA systems at North bend Sewer (completed in 2019), Cultus Lake and the Parkview Water System to allow for remote monitoring and less frequent in-person visiting (less driving).

Conducted an energy audit of FVRD fleet vehicles, which will help guide the new purchase of fleet vehicles. The audit includes suggestions such as replacing gas powered vehicles with electric vehicles.

13 | Page The planning department has improved their website page and has expanded capacity to respond to property and development inquiries by phone or email to reduce trips to the FVRD. The capacity to respond to inquiries by phone or email has been increasing each year.

An electric vehicle was provided to staff at the Hope Recreation Centre for the summer months when the Almers Carlson Pool is open. It was used every day of the week for 3.5 months, to drive 220km per day. A Chevrolet Bolt was used rather than a Ford Ranger to make this daily trip. This will occur again in 2019.

The FVRD implemented a policy for tracking fuel consumption of contractors to get a better understanding of usage with opportunities to select more fuel-efficient contractors in the future. The policy was approved by the Board in 2018 and has started to be implemented within procurement.

### **Q 55 Corporate Transportation - Actions Proposed for 2019**

The FVRD is working with BC Hydro to get four new High Voltage Utility Connected (HVUC) Level 2 EV chargers.

Service on route #22 (Hope), and route #11 (Agassiz-Harrison) is being monitored and further expansion will be considered as demand for transit increases. Planning will begin on a new route connecting the communities on the north side of the Fraser River between Agassiz and Mission.

A feasibility study will be conducted in the North Fraser Valley between Mission and Maple Ridge with regards to providing transit service. The timing of this study will be dependent on BC Transit's 2019 work plan and their capacity for undertaking additional planning initiatives.

The FVRD will be buying a smaller fuel-efficient truck (2019 Ford Ranger) to replace an old inefficient 2014 F-150.

The FVRD will be implementing a training program for all new onboard staff members to learn about how to use the corporate electric vehicles. This initiative is designed to reduce anxiety around using EVs and encourage their use for meetings. For existing staff members, EV101 workshops and incentives such as prizes may be used to encourage use of EVs.

#### **Transportation**

Q 56 Does your local government have policies, plans or programs to support:

Walking – Yes / Cycling – Yes / Transit Use – Yes / Electric Vehicle Use – Yes / Other (please specify)

**Q 57 Does your local government have a Transportation Demand Management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behaviour)? No**

**Q 58 Does your local government integrate its transportation and land use planning? NO**

**NOTE: The introduction of Hydrail (Hydrogen Rail) Passenger Rail would be a significant addition to these initiatives.**



# South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

## **" The Plan "**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### **Our traffic reality.... South of the Fraser?**

- **We are home to close to 1.2 million residents!**
- **Between Langley and Chilliwack we have one road in and one road out, Highway #1!**
- **Between Surrey, Langley, Abbotsford and Chilliwack we have virtually NO public Transit!**
- **Highway #1 is in virtual gridlock traffic volume is growing exponentially every year! Stuck for hours behind volume or a traffic accident on Highway #1, a 2–4 hour wait is not unusual.**
- **Between Langley and Chilliwack, car crashes have doubled in the last two years!**
- **Between 232<sup>nd</sup> St in Langley and Annis Road in Chilliwack – a four lane stretch, crashes rose from 510 in 2015 to 1,100 in 2017!**











## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### Comments: Premier John Horgan, Former Mayors and Mayors in the Region!

- **Premier John Horgan** – “The Province would look closely at the idea (Interurban Reactivation), Horgan said, noting that transportation is not just about moving people to Vancouver but around the valley as well.”
- **Mayor Henry Braun Abbotsford** - Transportation is their most significant issue, something has to be done, we can't live like this!
- **Former Mayor of the Township of Langley Rick Green** — Population growth from the Langleys east to Chilliwack has grown exponentially, far greater than estimated in 2008, it is not slowing down!
- **Former Mayor of Surrey Diane Watts** – Mayor Watts, former chair of the Mayors TransLink Council was a staunch advocate of this reactivation and the Passenger Rights renewal. Shaw documentary Video 2010.

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### **Widening Highway #1 will happen over time.... But it IS NOT the solution!**

Mayors, past and present have promised Highway widening suggesting it was the answer? Two current examples - widening 202<sup>nd</sup> to 216<sup>th</sup> plus NOW the just added 216<sup>th</sup> to 264<sup>th</sup> - Remember we are only adding 1 HOV lane each way!

- 13 kms at a total cost of \$294 million (cost shared, Prov., Feds and TOL) started in 2017 due to finish in 2025 (8 Years).
- Distance, Langley to Chilliwack is 56 kms @ 3.25 kms per 2 years equates to finishing an HOV lane each way by 2051.
- The exponential increase in growth and traffic will out strip the benefits of widening by three times than it is today!  
Based on projected growth in 8 years, by 2025 (finish of latest project above) traffic will be worse than it is today!
- The above suggests that all Provincial, Federal and Municipal budgets align annually, planning started now and didn't stop until finished. Estimated total cost of widening in 2018 dollars – over \$1.2 Billion! It will not solve our problem!
- NOTE: The Township of Langley contributed \$41,433,000 on the two projects above, is a precedent now set for Provincial/Federal projects?

## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

### **Buses on Highway #1.... are NOT the Solution!**

- **Congestion on Highway #1 is severe and becoming worse by the day! Again our only Road in and out of the Valley!**
- **Buses get caught up in the congestion!**
- **It was announced May 7<sup>th</sup>, 2019 that they want to run the express Bus to meet up with SkyTrain on the other side of the Port Mann Bridge starting next year! Will there be any senior government funds?**
- **Accidents causing serious delays on Highway #1 occur 3–4 times per day causing 2–4 hour delays per accident, causing unreliable Bus schedules!**
- **Accidents on the highway, you have no place to go!**





## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

# The “Smart Way”

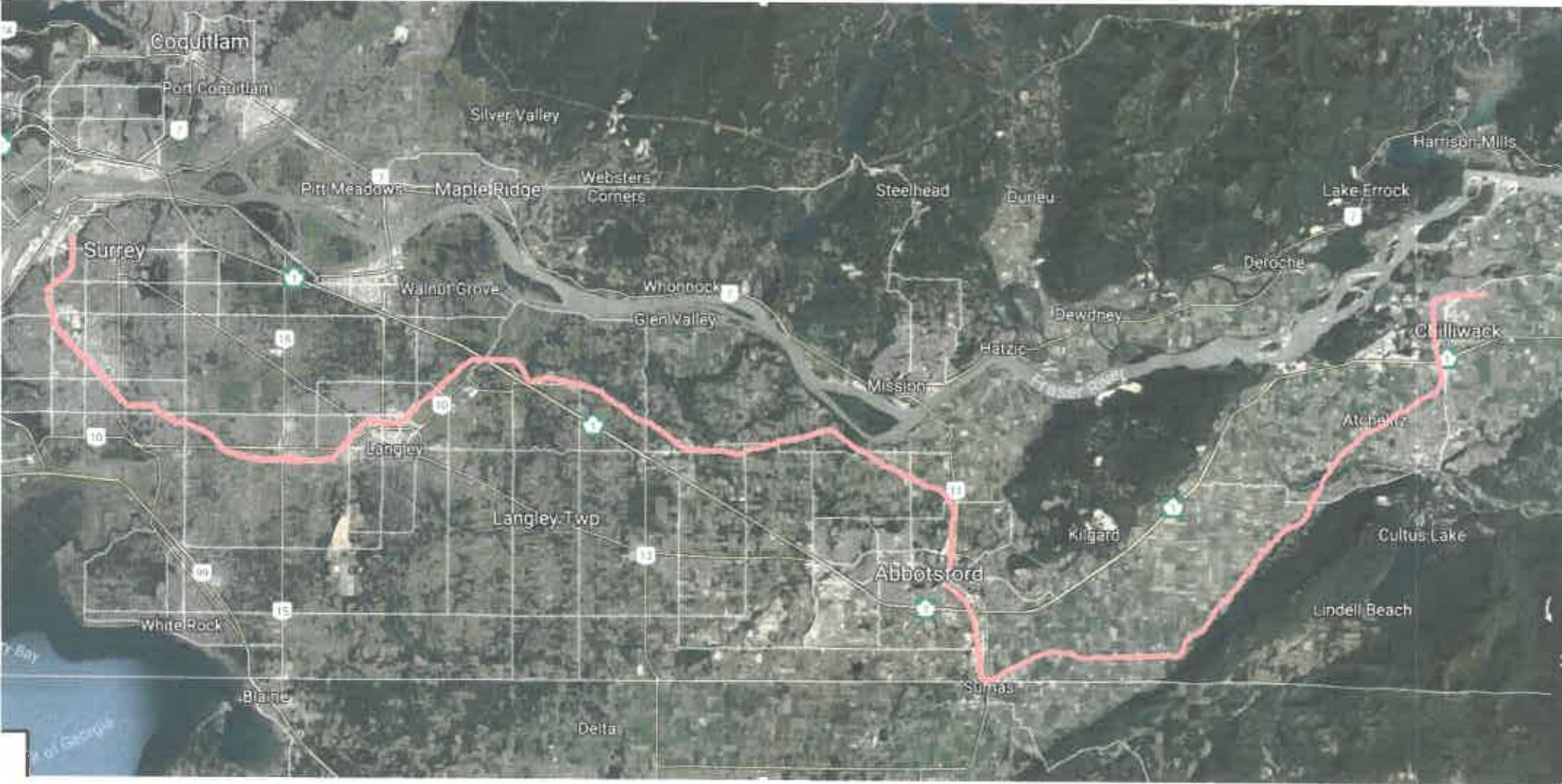
**To Solve the South of Fraser  
Transportation and Transit  
Deficit!**

## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

# Reactivate the Interurban Passenger Rail Corridor....

**99 Kms** at NO Cost for it's use!



## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### Why a rail line that meanders throughout the Valley? The Facts....

- **The Interurban Corridor is exactly that, a community transportation corridor that connects population centers FREE for it's use!**
- **Highway #1 goes nowhere near the population centers!**
- **The ALR containment boundaries prohibit expansion of these smaller communities, that are growing in density within their confined boundaries.**
- **The projections are for 1,000,000 more residents and 500,000 new homes in the Valley over the next 30 – 40 years! We need reliable Transit!**

## **South Fraser Community Rail**

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

**When is it available to re-activate?**

**NOW!**

**What has been the hold up all of these years?**

**A few recent and interesting developments....**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### Development #1 – Uncovering the Master Agreement!

- In 2009 the previously unknown document, the “Master Agreement” that covers the Joint section through the Langleys was uncovered.

### Development #2 – Contents of Master Agreement!

- The Master Agreement is for 21 years with a renewal clause. It was renewed 6 weeks before expiry or we would not be talking about this PRICELESS OPPORTUNITY today!!!
- Use of corridor is to be shared equally and fairly between freight and passenger users.
- If double tracking is required, it shall be at CP Rails expense, installation of track & removal of debris.
- CP agreed not to apply for this rail line to fall under the National Railway Act regulations.

### Development #3 – Introduction of Hydrogen Rail Technology!

- In early 2017 Hydrogen Rail Technology (Canadian) went through testing and was approved and licensed in Germany by Alstom in 2018. This is a Game Changer for our region!

## **South Fraser Community Rail**

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

**It is NOW available to re-activate,  
thanks to the most recent developments!**

**Who would it serve? How would it work?**

**What are the benefits?**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### **Create a Spine and Rib System....**

**“Just Like SkyTrain”**

**Building economic growth while serving....**

- **1.2 million residents!**
- **14 Post Secondary Institutions, increase access and increase enrollment through reliable public transit!**
- **16 Cities and communities!**
- **Abbotsford Int. Airport (Expect over 1,000,000 customers this year!)**
- **Tourism destinations!**
- **The ever popular Agri-Tourism!**
- **Dramatically reduce the number of Cars from Highway #1!**
- **Job access throughout the Valley!**
- **Offers “NEW” opportunities for regional economic growth which will motivate significant development and investment!**



Close to **3 million residents** within our region will be able to move from Lions Bay, North and West Vancouver, out to Chilliwack, using **public transportation**



**SeaBus**



**Bus**



**West Coast Express**



**SkyTrain**



**Hydrail**



#CONNECTTHEVALLEY



# South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

## **Economy – Job Growth:**

- **Directly boost economic growth in our region through the low cost movement of residents and goods South of the Fraser!**
- **Provide access to jobs throughout the Fraser Valley, including the 1,800 acre Campbell Heights Industrial Park and the 800 acre Gloucester Industrial Park with NO public transportation despite contributing over \$1.5 million annually in TransLink property taxes!**
- **Reactivating passenger rail will offer new opportunities for regional economic development and growth!**

## **Ease of Commuter Movement:**

- **Create a network of Transit Station/Shelters with Park n Rides from the Scott Rd. SkyTrain station out to Chilliwack!**
- **Establish a Bus service network – Ribs (North/South) feeding the Spine of a rail system!**
- **Connecting N. Delta, Surrey, The Langleys, Fort Langley, Aldergrove, Abbotsford, Huntington, Yarrow, Sardis, Chilliwack and return. A great initiative to put in place for our region!**

## **Ease of movement for Fraser Valley Sto:lo First Nations:**

- **The Fraser Valley is home to seven First Nations villages in the traditional Sto:lo territory. This service would open up First Nations communities with easy and affordable access throughout the lower mainland for employment, post secondary education, travel and special events.**



## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### Access to Post–Secondary Education:

- **Connect the population of the lower mainland with 14 Post-Secondary Institutions – Improve Access, Increase Enrollment!**
- **Affordable Transportation to 58,000 students and staff daily!**

### Revitalize Communities:

- **Revitalize Cities and Communities of Kennedy, Newton, Cloverdale, Langley City, Aldergrove, Huntington/Sumas, Yarrow and Sardis!**

### Access to affordable housing with Transportation to support it:

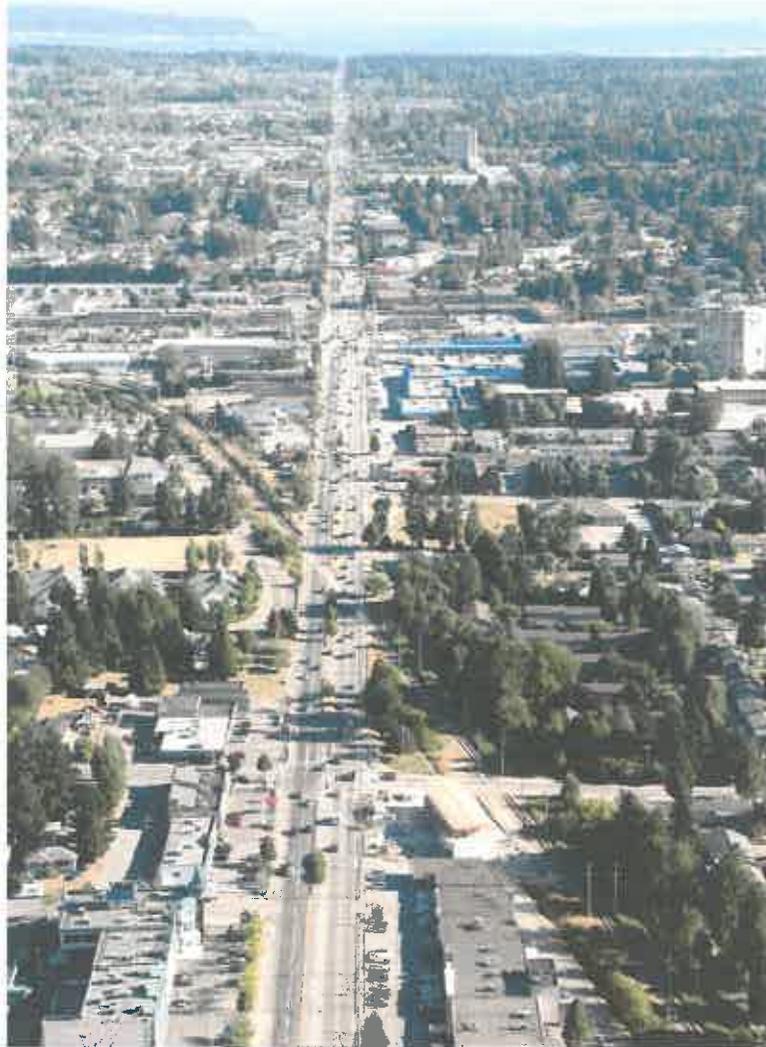
- **From the Township of Langley to Chilliwack is the destination of choice for affordable housing. It is growing exponentially, lets provide Transportation to support that growth, not hinder it with increased congestion on Highway #1!**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### From N. Delta to The City of Surrey and it's Communities

- **Connecting the communities in Surrey directly through the Interurban Corridor with the Fraser Valley and into Vancouver connecting with SkyTrain at Scott Road.**
- **This corridor would serve all of Surrey including White Rock through a bus feeding network.**
- **Newton would serve as a terminus for LRT serving King George Blvd. utilizing Translink owned land!**
- **The 1,800 acre Campbell Heights Industrial Park would be well served by this State-Of-The –Art Community Rail Passenger Service.**













## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### In Langley City and the Township of Langley

- **Connect Langley City and Township communities with all communities up and down the Fraser Valley and into Vancouver using a Spine and Ribs system!**
- **Access Kwantlen Polytechnic University!**
- **Access Trinity University!**
- **Access Thunderbird Equestrian Show Park!**
- **Access Gloucester Industrial Park!**
- **A commuter option to Abbotsford, Chilliwack, Surrey, Vancouver and the North Shore!**









## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### In Abbotsford

- **Connect the City of Abbotsford and it’s primary business community down Sumas Way with communities up and down the Fraser Valley and into Vancouver using a bus network (Ribs) to feed the Spine (Rail) just like SkyTrain or use the Park N Ride!**
- **Access the University of the Fraser Valley!**
- **Access the Abbotsford International Airport!**
- **Connect with Bradner and Abbotsford’s various rural communities!**
- **Provide a commuter option for it’s residents all the way out to the North Shore or out to Chilliwack!**





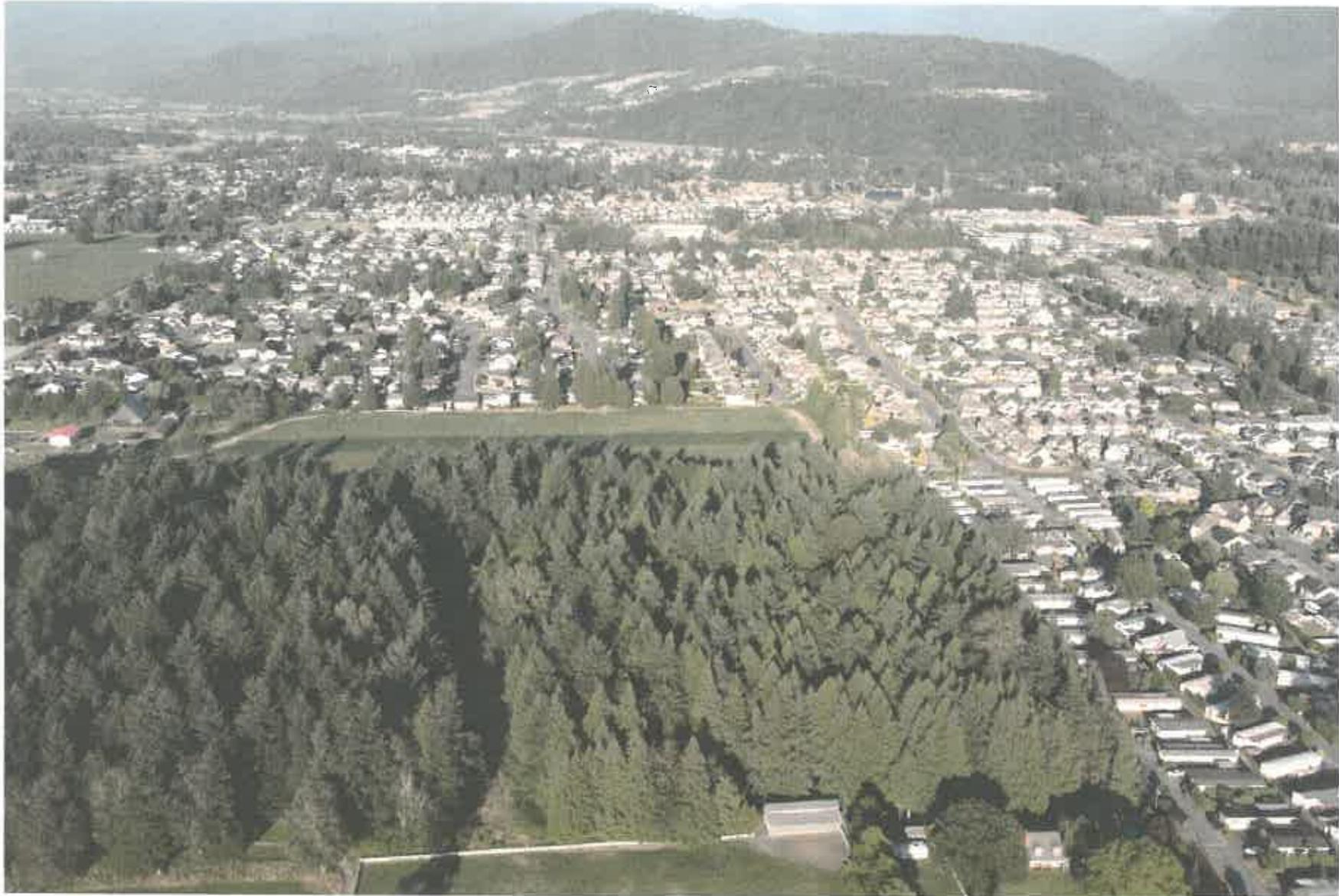


## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

### In Chilliwack

- **The Interurban Line runs close to their identified Growth Focus area of Vedder/Garrison and right through your Growth Focus areas of Sardis and Chilliwack! They would be well served. Use a bus network (Ribs) to feed the Spine (Rail) just like SkyTrain or use the Park N Ride!**
- **The Interurban runs through the edge of the rural community of Yarrow!**
- **Provide a commuter option with it's residents all the way to the North Shore!**













## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

### Surrey – Langley - Abbotsford – Chilliwack - Traffic!

- **We must have an affordable, accessible, convenient and an environmentally friendly public transit system – Local and Regional - for all residents.**
- **Highway #1 as we all know, is in daily gridlock. That affects everyone's quality of life. FVRD trip diary numbers from 2011 (exponentially higher today) shows there were 71,991 (2 way) trips daily between Langley City, Township of Langley, Abbotsford and Chilliwack! Imagine what it is today?**
- **You should be aware that roughly 70% of ALL trips starting South of the Fraser today end South of the Fraser, a reversal of what it was about 20 years ago.**



## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

### Fraser Valley Traffic, Surrey to Chilliwack - The PRACTICAL solution?

- **We have a functional upgraded and maintained community rail line that is available for passenger use today, preserved for that use by the Provincial Government of 1988, at no cost for it's use! A vision that is unheard of in todays world, BUT it is a FACT! A PRICELESS opportunity!**
- **What makes this Community Rail Line so attractive today? 1) Renewal of Passenger Rights (Pratt Livingston Corridor) and 2) Introduction of Alstom Hydrail, a Canadian propulsion system, manufactured by Hydrogenics of Mississauga Ontario.**
- **It has been successful and in active operation in Germany since last year!**



## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

### **The Environment – Protect the Fraser Valley Airshed!**

- **The Fraser Valley Airshed from East Langley out to Chilliwack is getting exponentially worse every year, we must reduce exhaust emissions. Building and expanding roads will not help the problem, it will exacerbate it!**
- **This plan, we suggest would run 16 to 18 hours a day 7 days a week.**
- **If action is not taken within the next 5 years we will be financially bankrupt in transportation resources and our air quality in the valley will be completely unlivable. One word, it is unsustainable!**
- **Eliminates any clear cutting of Green Timbers Urban Forest down Fraser Highway in Surrey!**
- **1 train would remove 177 cars from Highway #1 – Reduction of Greenhouse Gas Emissions!**
- **Would utilize proven Canadian Hydrogen Technology, NOW operating in Germany since 2018!**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### What is the positive impact on our environment of Hydrail Technology?

The Air Quality in the Fraser Valley as we have said is VERY POOR most of the year due to the geography of the Fraser Valley with the mountains creating a funnel trapping vehicle emissions thanks to the winds coming off the water and forcing the pollution up the valley. We are a product of our environment, with the exponential growth of population and therefore cars, Abbotsford through to Chilliwack, widening highways will only exasperate the problem.

**Per iLint vehicle Reduction of 700 Tonnes of CO2 per year Equals yearly emissions of 400 cars**

**Per iLint Fleet Reduction of 11,000 Tonnes of CO2 per yr. Equals yearly emissions of 6,000 cars**

**Interesting note of comparison – B.C. Ferries over the past three years have converted their two Spirit Class Ferries to LNG which will reduce emissions by 12,500 tonnes every year at a cost for the conversions of \$140 Million.**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*



### **About the CleanBC Plan:**

**CleanBC** outlines the B.C. Government vision for a more prosperous, balanced, and sustainable future, using clean energy to power the economy while driving down greenhouse gas emissions. Hydrogen Powered Passenger Rail Service would meet those expectations of performance.

## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

**So we have listed the Practical Benefits....**

**Now Lets talk Common Sense  
And the Reality of today!!**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

**Our Senior levels of Government, B.C. and Federal, have made the following Transportation commitments to-date, all cost shared:**

• <b>Pattullo Bridge</b>	<b>\$1.37 Billion</b>
• <b>Broadway Corridor</b>	<b>\$2.83 Billion</b>
• <b>Surrey LRT</b>	<b>\$1.65 Billion</b>
• <b>Misc. Translink</b>	<b><u>\$2.82 Billion</u></b>
<b>Grand Total</b>	<b>\$8.67 Billion</b>

## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

**Within reason there Will BE very few additional dollars from senior levels of government  
or at the very least they will be very hard to come by, that is NO secret!**

**No More Money \$\$\$\$\$\$....?**

**So?**

## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

**Lets reconsider and compare our options!**

**Surrey to Langley City LRT or SkyTrain down Fraser Highway is ....**

- **Financially Irresponsible!**
- **Economically Irresponsible**
- **Environmentally Irresponsible!**

**The Interurban is far more Cost Effective and serves a far greater population:**

- **Less than 8% of the cost per Km of the Surrey to Langley LRT or SkyTrain!**
- **Less than 20% of the per capita cost of the Surrey to Langley LRT or SkyTrain!**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

<u>Option 1</u>		<u>Est. Population.</u>	<u>Est. Cost.</u>	<u>Per Capita Cost</u>
Original LRT / 104 <sup>th</sup> & King George Blvd	Guildford	60,745		
	Whalley	102,555		
	Newton	<u>149,040</u>		
		312,340	\$1,600,000,000	\$5,122.62
<u>Option 2</u>				
Skytrain down Fraser Hwy to Fleetwood	Fleetwood	<u>62,735</u>		
		62,735	\$1,600,000,000	\$25,504.10
<u>Option 3</u>				
Skytrain / Fraser Hwy/to Langley City Clayton, Langley City, Brookwood / Fernridge Murrayville, Willoughby (Will be more than \$3 Billion)	Fleetwood	62,735		
		55,283		
		<u>39,600</u>		
		157,618	\$3,000,000,000	\$19,033.36

**OR**

# South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

<u>Option 4</u>	<u>Est. Catchment Pop.</u>	<u>Est. Cost</u>	<u>Per Capital Cost</u>
N. Delta	58,000		
Newton	133,510		
KPU/SFU	13,500 Daily		
Sullivan	25,000		
White Rock	19,288		
S. Surrey	86,550		
Cloverdale	71,400		
Langley City	27,283		
Fort Langley	3,400		
Township of Langley (net of Fort Langley and Aldergrove)	107,000		
KPU / Trinity	7,100 Daily		
Gloucester Ind Park	20,000 Daily		
Aldergrove, Abbotsford, Sumas, Yarrow, Sardis & Chilliwack	250,375		
UFV, Int. Airport, Canada Education park	<u>30,440 Daily</u>		
	852,846	\$1,250,000,000	\$1,465.68

## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

**Utilize a 99 KM Passenger Right-of-Way, owned by the taxpayer at**

**NO COST!**

**The Interurban Rail Corridor was protected in 1988 for passenger rights at**

**NO COST!**

**Compare that to** The West Coast Express which costs TransLink (us the taxpayer) \$20 million per year plus Capital and Operational Costs! That is \$20 Million per year paid to CP Rail for a lease (use of line)! West Coast Express run 5 trains in the AM and 5 trains out in the PM – only 5 days a week on work days not holidays!

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### The Facts.... PER KM? Why we are very concerned!

- Surrey LRT Cost (Orig. Plan 11kms/\$1.65 Billion) - **\$157,142,857. PER KM**
- Broadway Extension / Subway to Arbutus Cost - **\$487,931,034. PER KM**
- Sur. Center to Lang. City SkyTrain (16km/\$3.2 Bil)- **\$200,000,000. PER KM**

“ALL COSTS FROM TRANSLINK OR EXTRAPOLATED FROM THEIR PUBLISHED NUMBERS.”

### **BUT, there IS A MUCH BETTER IDEA!**

**Our Proposal – A South Fraser Community Rail Hydrogen Line!**

**99 Kms Scott Rd. to Chilliwack South Fraser Community Rail**

**\$12,500,000. PER KM - ALL IN**

**IMPORTANT NOTE: The above numbers are supported by a Leewood Engineering Study!**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### So what are our communities and media saying?

- **Newspaper - Southern Railway** *“SRY Rail Link is open to the concept of passenger rail services that would utilize our rail assets”*
- **Langley Advance** - *“It was the clever boys in Vancouver and Victoria who killed the Interurban transit system that served a far less densely populated Fraser Valley half a century ago. It’s long past time to correct that mistake.”*
- **The Province** *“The most efficient and “green” way to move large numbers of people is via light-rail transit. Given the population growth in the Fraser Valley, this transit option should be a no-brainer.”*
- **Abbotsford News** *“If the government is to meet its goal of cutting air contaminants by 4.7 million tonnes in the next 12 years, the revival of the interurban line will be one of many initiatives aimed at getting commuters out of their cars.”*
- **Abbotsford Times** *“Now is the time, when our population still allows it, to finally look at light rail. We have the rail ready and the cost of getting it up and running would be a fraction of the cost of building more SkyTrain routes... Not only are we convinced that rail is the best solution for the Fraser Valley, we are convinced that it will be used.”*

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### More about what our communities and media are saying?

- **The Province** *“One of the biggest disappointments in Victoria’s new transit plan is its failure to include the possibility of light-rail passenger service — along the old Inter-Urban rail route from Vancouver to Chilliwack. In our view, any transit plan that doesn’t include such an environmentally-sound option is deficient”*
- **Surrey Leader** *“Where is the much-needed light rail for the Fraser Valley?”*
- **Langley Times** *“We can learn from history. Rail-based transit will work in the Fraser Valley.”*
- **Chilliwack Times** *“There’s far too much foot-dragging when it comes to the issue of a proper transportation infrastructure for the Lower Mainland and the Fraser Valley.”*
- **Chilliwack Times** *Make no mistake, passenger rail service from Chilliwack to Abbotsford, Langley, Surrey, and even to Vancouver would be a great thing.*

## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

### And More about what our communities and media are saying?

- **Surrey Mayor Dianne Watts:** *"South of the Fraser, we want at-grade light rail. You see it all over the world." "I for one am a firm believer that instead of SkyTrain expansion in Surrey we should be looking at at Grade Rail. At Grade Rail is significantly cheaper, easier to build and much more aesthetically pleasing than SkyTrain."*
- **Delta Councillor Bruce McDonald:** *"I really do believe 10 years, 15 years from now that line will be as important to the valley as the old Interurban was."*
- **Langley Mayor Rick Green:** *"Interurban services should be fast tracked, at least achieving excursion runs within the next couple of years."*
- **Abbotsford Councilor Lynne Harris:** *"I think the movement will take hold. I think there's feasibility to it. The infrastructure is already there, and in terms of economic affordability, it's an idea that should be explored."*

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### And even More about what our communities and media are saying?

- **Jock Findlayson and Ken Peacock Business Council of B.C.:** *Bold moves needed now to resolve Lower Mainland livability crisis! A NEW Fraser Valley “Innovation Corridor” anchored by a commuter rail system running from Chilliwack to the City of Vancouver would help address many of the region’s most pressing issues. It would also offer new opportunities for regional economic development and growth. **Burnaby Now***
- **Former Chilliwack Mayor Sharon Gaetz:** *“Light rail linkages between communities would be invaluable. The track could connect the University of the Fraser Valley and there could be tourism and business opportunities that we’ve only dreamed of.”*
- **Bill Vander Zalm Former Premier of B.C 1986 – 1991 (Whose government protected this corridor for passenger rights):** *“It’s going to save billions, it’s better for the environment and will get more people out of their cars. We are going to be actively working on this.” **Delta Optimist***

***Our campaign is soliciting even more support for establishing a South of the Fraser Provincially endorsed Community led Transportation Task Force, those results will determine once and for all the desire of the South of the Fraser Community, lets get on with it!***

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

**So after all of this, what is the hold up?**

**Very easy question to answer, the reason is....**

**We need to be allowed the time and opportunity to present this comprehensive PLAN and all of its details to the TransLink Mayor’s Council the TransLink and B.C. Transit Board of Directors. The details on what is available is too important to leave to staff to decide on priorities!**

**True Public Engagement will only happen through an embraced Public Engagement process involving Translink, B.C. Transit and the FVRD, looking at the “Full South of Fraser Region”!**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

### The Public just have to ask the question why?

**WHY.... spend \$1.3 Billion to serve 99 KMs, 16 communities, 14 Post Secondary Institutions, an Airport that serves 1 million people a year, 2 significant Industrial Parks and 1.2 million people with state-of-the-art Hydrail Transportation....**

**When you can spend \$3 Billion to serve 16 KMs down largely an empty expanse of the Fraser Highway that would serve 3 communities and about 158,000 residents using SkyTrain technology designed for very high density!! *25% of that 16 kms is a dead zone!***

### Are Taxpayers Happy?

**Is the public happy, currently paying 18.5 cents a litre in TransLink Gas tax?**

**What about 7% of their property tax to TransLink?**

**How much is the public willing to pay towards these financially irresponsible decisions?**

## South Fraser Community Rail

*"Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

### UPDATE!

**We presented our plan to the City of Chilliwack Council at their meeting on Tuesday April 2nd. We received unanimous support on our two asks....**

- 1. Unanimous support for the establishment of a South of the Fraser Transportation Task Force and....**
- 2. Unanimous support for the referral of our presentation to be made before the Fraser Valley Regional District Board!**

**Now we NEED the support of the TransLink Mayors Council, the TransLink Board of Directors, the Fraser Valley Regional District Board and the B.C. Transit Board to create a true Public Engagement process throughout the Fraser Valley South of the Fraser!**

# South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

## So how has our campaign been doing so far – In a week and a half after Chilliwack....

**Chilliwack Council presentation – Unanimous support for our asks Tuesday April 2nd! Media – Not too bad, stay tuned!!**

- **CBC Radio, TV and on line**
- **CKWX Radio and on-line**
- **Chilliwack Progress – Print and on-line**
- **Surrey Leader Now – Print and on-line**
- **Peace Arch News – Print and on-line**
- **Cloverdale Reporter – Print and on-line**
- **Abbotsford News – Print and on-line**
- **Aldergrove Star - Print and on-line**
- **Maple Ridge News – Print and on-line**
- **Langley Times Advance – Print and on-line**
- **CKNW – Jon McComb Show**
- **Global BC TV Newshour, 5:00 News, 6:00 News Hour and 11:00 late night news – On location and on-line**
- **City – TV**
- **Vancouver Sun**
- **The Province**

**And this is only the start of our campaign.....**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. Skytrain to Chilliwack” #connect the valley*

### **We NEED Passenger Rail to happen!**

- **We are not going to stop our campaign to get an opportunity to present our PLAN to the TransLink Mayor’s Council, the TransLink and the B.C. Transit Board!**
- **We are not going to stop our campaign until we get the support of the TransLink Board, Translink Mayor’s Council and the B.C. Transit Board - We are talking REAL MEANINGFUL Public Engagement!**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. Skytrain to Chilliwack” #connect the valley*

It is long past time that the decisions that are made on our behalf (the taxpaying public) reflects a concern about Value for Money, Fiscal Responsibility, Environmental Responsibility and Economic Value, which truly supports our region. Our ASK?

***“To support our call for a joint Public Engagement Process with TransLink and B.C. Transit as a part of TransLink’s just launched Transport 2050!”***

**This is an initiative that we are convinced would go a long way to solving our significant transportation and environmental problems.  
Lets get to work and involve our communities NOW!!**

**Check out our website [www.southfrasercommunityrail.ca](http://www.southfrasercommunityrail.ca)  
Check out our Facebook Page and like it – south fraser community rail**

## South Fraser Community Rail

*“Hydrogen Passenger Rail, Scott Rd. SkyTrain to Chilliwack” #connect the valley*

**It is long past time that we send a message to our senior government politicians and bureaucrats....**

**“Reactivate the Interurban Corridor with an Environmentally Friendly Passenger service utilizing Hydrogen Technology –  
the Health of Fraser Valley Residents deserve it!””**

**Thank You! Any Questions?**

**This presentation is made on behalf of –**

**The South Fraser Community Rail Committee Management Group and the The Hydrogen iLink Line Founding & Action Group Members: Rick Green, Lee Lockwood, Roy Mufford, Peter Holt, Brit Gardner, John Vissers, Scott Thompson and Tony Edgar.**

**Patrick Condon, Professor University of British Columbia, James Taylor Chair in Landscape and Livable Environments.**

**Bill Vander Zalm former Premier of the Province of British Columbia 1986 - 1991.**

**The “Smart and ONLY” Way  
TO Economically and Environmentally  
Solve the South of Fraser’s  
Transportation & Transit Deficit**

***“Building economic growth serving 1.2 million citizens,  
16 cities/communities, Major Industrial Parks,  
Abbotsford International Airport, Agri-Tourism and  
TEN University campuses”***

## Compelling case

- **Low cost**  
Rail corridor owned by the Province of B.C. (BC Hydro)  
Based on Scottish case this may be done for less than \$20M/km
- **Early in-service date possible**  
Phased implementation over rail-ready sections
- **No impact on Port-Metro activities**  
Not strategically important to the Port Metro Vancouver as not suitable for heavy freight movements due to 2.9% grade on Surrey Docks section of the line
- **Complementary to Surrey LRT project**
- **Minimal disruption to major road networks during construction phase**
- **Most densely populated sections have minimal freight traffic**

# Re-Connecting the South of Fraser Communities

**Fraser Valley Interurban  
Passenger Services 1910-50**



**3 track corridor waiting to  
be used 2017** →



**The railway built to serve passengers and  
freight in 1910 waiting to serve again**

# Supporting the Low Cost Solution

*Learning from others....the Scottish experience*

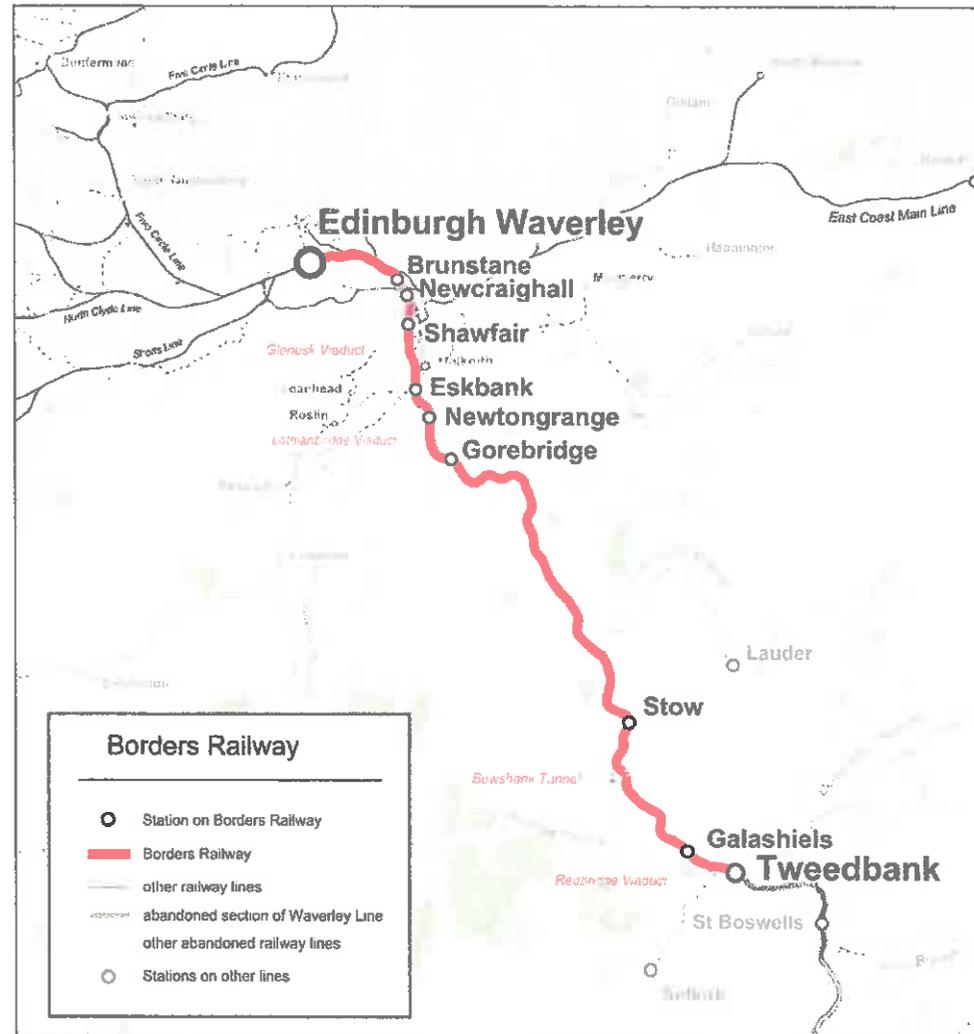
**Comparison between the Scottish Border  
Rail project with the BC Hydro owned  
interurban corridor running from New  
Westminster to Chilliwack**

# The Key Scottish Asset .....

## .....an existing rail corridor

A 56km railway corridor,  
46 kms totally dismantled  
and abandoned in 1969.  
Partly built on!

Links downtown  
Edinburgh  
(same population as Surrey!)  
to the rural border  
country and beyond



# A little history.....

**The Scottish border country lost its passenger rail service to Edinburgh 46 years ago**



**Rail service in 1960s - Galashiels**



**Border Rail service restored-Sept 2015**



**Many challenges along the route.....**

## Construction Challenges of Scotland's Border Railway



New Bridges & Refurbished Tunnels

# Scotland's Border Railway

- ❑ Marginal business case based on community needs and projected economic benefits from tourism
- ❑ Strong community support but contentious project
- ❑ 3 major line blockages due to buildings and new roads
- ❑ Original P3 collapsed; pseudo governmental agency succeeded.
- ❑ Work began Nov 2008. First sod turned 2010
- ❑ Operational Sep 9, 2015. Half-hourly service
- ❑ **Cost < C\$10M/km**

## Scotland's Border Railway

### Project Specifications

- 65km of single line track ( incl. 3 long dynamic passing loops)
- 42 new bridges
- 95 refurbished bridges
- 2 refurbished tunnels
- 1.5million tones of earth moved
- Non electrified but built to allow for future electrification

**Cost of Construction    £294 Million**

**C\$ 539.2M** (Based on Jan 2015 Canadian CRA exchange data 1GBP = C\$1.83)

**C\$9.46M per km**

# Community Rail

## The Fraser Valley Rail Line

### The Case for Community Rail in the Fraser Valley

#### Objectives:

- To enable Fraser Valley residents to have more choices in moving around the valley and into Vancouver!
- Reduce environmental impact of cars and trucks!
- Very positive economic impact on the lower mainland providing employee access to Industrial Parks plus easy access to the Abbotsford Airport!
- Dramatically improved student access to Fourteen post secondary institution campuses!
- Provide a cost effective solution that can be implemented in phases with the early phases being delivered quickly!
- Provide greater efficiency in transit through the integration of the new rail services with local bus routes! *A spine and rib system similar to Sky Train!*

# Community Rail The Fraser Valley Line The Potential Routes



**Scott Road, Surrey  
(Skytrain Station)  
to  
Langley city  
Length 20.2 kms**

**Langley City  
(City Hall)  
to  
Abbotsford  
(Essendene)  
Length 41.86 kms**

**Abbotsford  
(Essendene)  
to  
Chilliwack  
Length 38.55 kms)**

# Community Rail

## The Fraser Valley Rail Line

### Key Points

- Passenger rights in place
  - Corridor owned by BC Hydro
  - Can be built in phases
  - Suitable for Tram-Trains\*
  - Integration with short line freight movements. Temporal separation possible
  - Serves large population
  - Connects South of Fraser Communities
- Single line track utilizing majority of current corridor
  - New routing to serve key centres
  - Consider potential of new hydrogen FC iLints– in production (Alstom)
  - Twin Track possible
  - Consider potential of tram train technology (Vossloh)

# Actual Cost Comparisons

## British Columbia (fully automated light rail)

Project	Characteristics	Cost (CAN \$)
Evergreen Line	11 km - Light Metro Skytrain-automated/underground/ surface/elevated (opening 2017)	<b>\$130.0M/Km</b> (Total \$1,430 Million)
Canada Line	19.2 km Light Metro-automated/underground/elevated/ surface (opened 2009)	<b>\$107.0M/km</b> (Total \$2,054 Million)
<b>Surrey Center / Langley City</b>	<b><u>18.1 kms</u> Fraser Hwy (widen from 12 meters to 45 meters, Incl. 2 – 4 lanes plus 2 train tracks plus bike/pedestrian path) NOTE – Clear Cut a min. of 33 meters of Green Timbers Forest in Surrey!</b>	<b>\$157.1M/km</b> (Total \$2.6 Billion)
<b>NEW – Inter-Urban</b>	<b><u>99.23 kms</u> Scott Road to Chilliwack Open up the Fraser Valley</b>	<b>\$12.5M/km</b> (Total \$1.240 Billion)

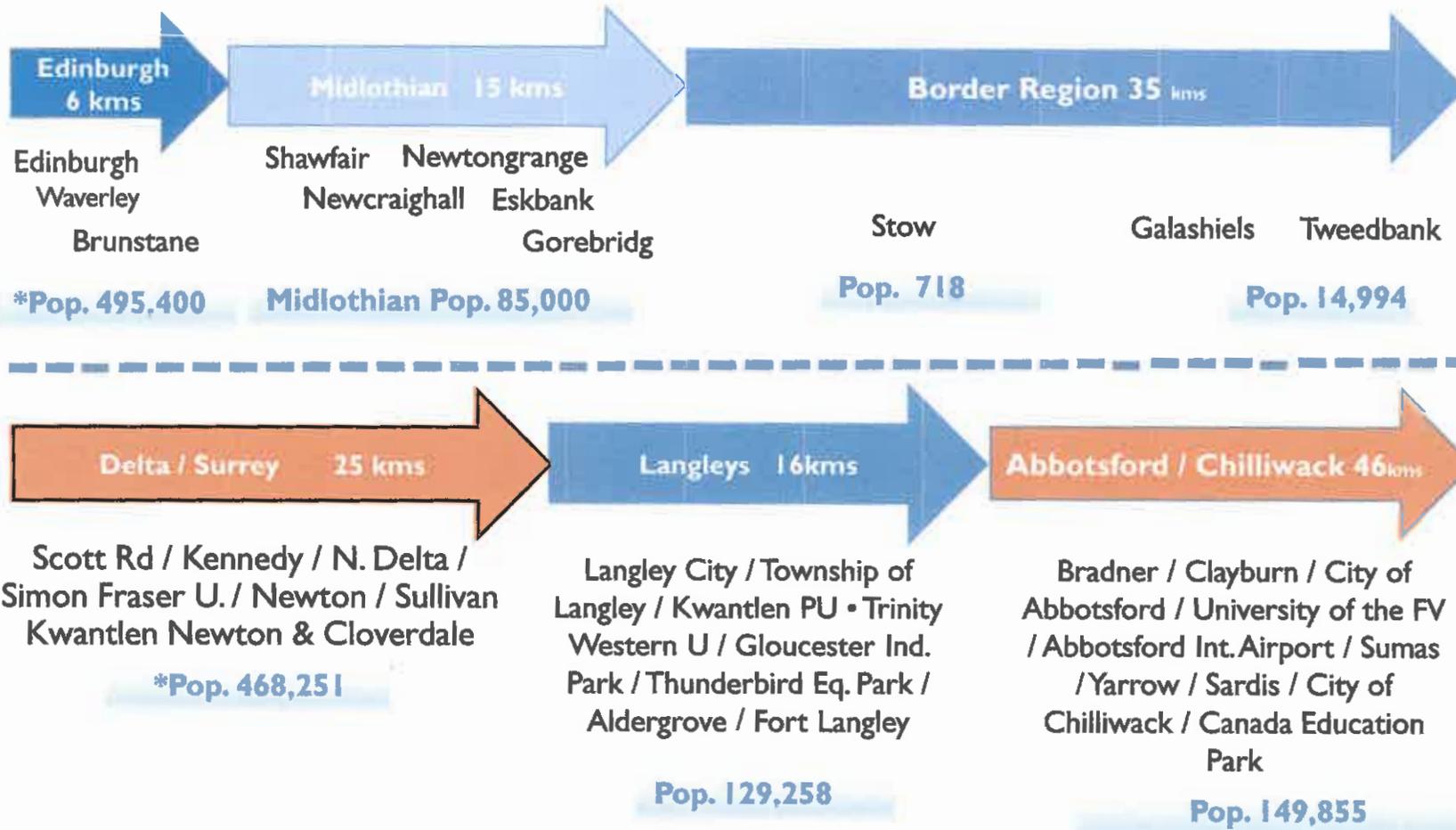
## Scotland UK (heavy rail)

Project	Characteristics	Cost (CAN \$)
Border Rail	57km - Heavy rail*, Diesel Multiple Units – at grade, restored rail corridor. Multiple bridges and road realignments. (Open 2015) £294M	<b>\$9.5M/Km</b> (Total \$539 Million)

(Exchange rate CRA Jan 2015)

\*Heavy rail refers to rail stock that can operate in conjunction with freight services on same rail corridor.

## Route Comparison



\*All population stats. 2011

## Community Rail

### The Fraser Valley Rail Line

#### Phased Approach

Project	Characteristics ( Diesel Light Rail - Single track with loops)	Cost (Can\$)
Scott Rd to Newton	10kms - at grade, 2.9% grade Scott Road to 96 <sup>th</sup> Ave	TBD
Newton to Cloverdale	9.3kms – at grade. (Passes under major Hwy 15, 6 road Xings plus some farm Xings)	TBD
Cloverdale to Langley City Centre	5.5kms – at grade. Would require overpass to cross main Deltaport rail link plus possible alternate route. Disused corridor available for part of route	TBD
Langley to Abbotsford	28.52km – at grade. Passes over Hwy 1, numerous road Xings. Numerous day-trip tourist destinations	TBD
Abbotsford to Chilliwack	38.55km – at grade. Passes under Highway 1, numerous road and farm Xings. Serves historic small communities	TBD

The route of the interurban line incorporates few bridges but has many at grade rail crossings. These would almost all need to be upgraded to fully gated passenger grade. Access to Scott Road Skytrain station has been secured by City of Surrey

# Observations

- ❑ Automated light metro systems are prohibitively expensive and necessitate limited regional transit coverage thus making the region 'transit poor'
- ❑ \$300M tunnelled and \$130M/km elevated automated transit systems are not affordable on a regional basis
- ❑ We can learn from other regions that maximize their transit coverage through integrating available infrastructure into the overall transit system

(We preach reuse in waste management why not infrastructure ? )

## The Fraser Valley lost its passenger service to Valley communities and Vancouver 75 years ago



Coradia LINT 41 DMU  
Ottawa "Trillium/O-Train" 2013  
Fraser Valley Community rail 2020 ???



Alstom iLint  
Fraser Valley Community rail 2020 ???

## Actions

- Review/Update original 2006 Translink DRL Report in light of technology upgrades and cost and delivery constraints

***NOTE: Hydrogen FC powered units are capable of operating along interurban corridor with no interference with BC Hydro's secondary transmission lines that also use the corridor. Environmental impact due to operation of the Alstom Coradia iLint units is zero.***

## Further information

[www.bordersrailway.co.uk](http://www.bordersrailway.co.uk)

[www.campaignforbordersrail.org](http://www.campaignforbordersrail.org)

[https://en.wikipedia.org/wiki/Borders\\_rail](https://en.wikipedia.org/wiki/Borders_rail)

### **\*Vossloh - Tram Trains**

<http://www.vossloh-kiepe.com/news/press-releases/vossloh-rail-vehicles-und-vossloh-kiepe-liefern-sieben-neue-train-trams-nach-grossbritannien>

### **Alstom – Hydrogen FC iLint Trains**

<http://www.alstom.com/press-centre/2016/9/alstom-unveils-its-zero-emission-train-coradia-ilint-at-innotrans/>

### **Alstom – Hydrogen FC iLint Trains – First Order from Germany**

<http://www.thelocal.de/20160920/first-alstom-hydrogen-train-at-berlin-innotrans-tradeshaw>

<http://www.alstom.com/Global/Transport/Resources/Documents/brochure2014/Coradia%20iLint%20-%20Product%20sheet%20-%20English.pdf?epslanguage=en-GB>

Thank you



539 Spyglass Place  
Gibsons,  
British Columbia.  
V0N 1V9  
CANADA

June 8, 2019

Members of the Fraser Valley Regional District Board of Directors,  
Regional & Corporate Services Committee Members,  
45950 Cheam Avenue,  
Chilliwack B.C. V2P 1N6

Dear Members of the FVRD Board,

I am writing to offer my strong support for the initiative to reintroduce regular passenger rail services along the provincially owned Inter-urban corridor. It is difficult to understand why this practical, low-cost option for increasing passenger transportation for the South of Fraser region still remains largely unexplored, given its outstanding potential.

Below are a few key points that inform my passionate support for this project:

- The 99km long rail corridor is provincially owned. Passenger rights along its whole length are preserved and available;
- The Inter-urban rail corridor is 100ft wide along the majority of its length which is sufficient for the single track to be expanded to triple track operation, allowing freight services to continue unaffected;
- Previous reports are at least ten years old and have not had full access to accurate information on the status of the rail corridor;
- The cost of implementation is estimated to be less than one tenth the cost per kilometer of current options under consideration; (Based on a comparable reactivation of the Scottish Border Railway between Edinburgh and Tweedbank ( [www.bordersrailway.co.uk](http://www.bordersrailway.co.uk) / [https://en.wikipedia.org/wiki/Borders\\_Railway](https://en.wikipedia.org/wiki/Borders_Railway) & a short video presentation <https://vimeo.com/pxpeter/review/341219980/c254e2c685>)
- The first 20kms of the line through Surrey represents a significant opportunity to increase mobility options in a densely populated area;
- Innovative, clean the energy solutions exist, such as Alstom's iLint hydrogen powered passenger railcars, currently in use in North Germany, which have the potential to dramatically decrease the cost of implementation;

- Given the significantly reduced cost of this option, integrating the inter-urban corridor into the region's current transportation system would be an attractive addition to currently planned improvements;
- A compelling advantage of reactivating the inter-urban corridor would be the opportunity to combine a modern passenger service with small parcel movement, thus reducing freight traffic on the road network.

I have a long personal history of interest in rail transport systems, particularly in the reactivation of existing rail corridors and have relevant expertise in this area. I have served on a wide variety of committees reviewing transportation in the Lower Mainland and, in particular, I have focused on improving transport and transit options south of the Fraser. It is in this region, now, that the need for improvement has become critical. My experience as an engineer and, as a senior manager of multi-billion-dollar aerospace programs has provided me with significant insight into the funding and procurement challenges that surround major projects. I have served on both the government side and corporate side of such programs. I have read and analyzed many feasibility studies and reports and am critical and judicious in my assessments. The two reports purporting to assess the viability of reactivating the Inter-urban corridor were incomplete and offered inadequate detail.

The time is right for a comprehensive, independent review of the future of the Inter-urban rail corridor. The corridor exists, public ownership and passenger rights are secure, the need is undeniable so let's get 'onboard'.

Sincerely,



C Peter Holt BSc CEng MIET

email: [peter@holt.ca](mailto:peter@holt.ca)  
home: (604) 840-9640  
cell/mobile: (604) 218-8997



## South Fraser Community Rail

*"Hydrogen iLink Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

**RE: The Reactivation of Passenger Rail on the Interurban Corridor:**

**Subject: A Review and Critique of the DRL Report (circa October 16<sup>th</sup>, 2006 plus the Strategic Transportation Review Foundation Paper #4 Partnership FVRD / BC Transit, TransLink & B.C. Government – (Urban Systems circa 2008 / Final Report 2010) specific to the Interurban Corridor.**

I have enclosed a comprehensive Power Point Report in hard copy (that which I presented to the committee today) which provides a thorough review of what we are proposing and asking for with respect to the reactivation of the Interurban. This critique is to deal specifically with two very narrowly focused and therefore flawed consultant reports that have been produced on the Interurban Corridor going back to 2006 and 2008 respectively. As Mayor, I actively challenged TransLink's Senior management team regarding the Urban Systems Report. A meeting was held with TransLink senior management on January 11<sup>th</sup>, 2011 advising them of our serious displeasure with this report. All of that is on record in a letter dated January 13<sup>th</sup>, 2011 to Ian Jarvis, then CEO, recapping the results of that meeting and an action plan that was never implemented. As the Urban Systems Report clearly states on several occasions, it was a high-level review of the Interurban and they appeared to rely on the conclusions and assumptions on the DRL Report of 2006. This DRL report was restricted then by the terms under which it had to conform and is now even less relevant due to the advances in technology.

Consultants hired by TransLink? I have had personal experience with TransLink and their consultants - (they were the lead agency on the Mufford Crescent project in our community) that had our community up in arms. I led a small committee, filed a minority report against 12 funding partners and we won after a two-year fight. Their consultant was caught in several lies to the ALC.

Consultants writing reviews and reports must be challenged to be objective and knowledgeable on the project being reviewed.

It appears that the above two reports conclusions are still being recognized by some within TransLink and those with ulterior motives to support the view that the Interurban corridor should be dismissed as an option. Nothing could be further from the truth. So, to that end we will highlight the inaccuracies as follows.

**IMPORTANT:** Both of these reports were written without the knowledge of the contract content (in the provincial sale 1988) 1) on the whole Interurban Line and 2) the Pratt Livingston Corridor (otherwise known as the Joint Section) that runs through the Langleys from Cloverdale through to around 232<sup>nd</sup> Street covered by the Master Agreement (previously unknown but uncovered in the Spring of 2009). Specific to that Master Agreement which is an 88-page document are the following:

1. Under the terms of the Master Agreement - A 21 Year Agreement, renewal at either party's option including the renewal clause! Renewed in June of 2009, next renewal by August 26<sup>th</sup>, 2030.
2. Under the terms of the Master Agreement - Passenger Rights are protected at no cost up to 33% of the wheelage using the Joint Section tracks.
3. Under the Terms of the Master Agreement - Traffic on this section shall be shared equally between Passenger and Freight Traffic.
4. Under the Terms of the Master Agreement - Should total traffic reach a volume where double tracking is required it shall be done at CPs expense including installation of new track and disposal of all debris.
5. Under the terms of the Master Agreement – CP has agreed not to apply for this rail line to fall under the National Railway Act regulations.

**IMPORTANT NOTE:** – Outside of the Joint Section covered by the Master Agreement, the full Interurban Corridor from the Pattullo Bridge to Chilliwack has Passenger Rights protected in perpetuity per the agreement of sale in 1988 between B.C. Hydro and ITEL / Southern Rail.

**Greater Vancouver Transportation Authority (Technical Assessment of operating Passenger Rail On the Interurban Corridor FINAL REPORT, October 16<sup>th</sup>, 2006 Prepared by DRL Solutions Inc.**

**Page 3 Assumption – property acquisition required new right of way. Incorrect**

**Page 18 Sect 5 Technical and constructability Issues identified in their report as follows:**

<b>5.1</b>	<b>Service Reliability and Freight Train Operations S. Rail</b>	<b>Sale Agreement requirements</b>
<b>5.2</b>	<b>Service Reliability/Frt Train Operations CPR Page Subdivision</b>	<b>Master Agreement requirem.</b>
<b>5.3</b>	<b>Constructability of Additional Trackage/Steep Rail Gradients</b>	<b>N/A (New Technology)</b>
<b>5.4</b>	<b>Electrical Pole Line Restrictions on New Track Construction</b>	<b>N/A (Electrical Not required)</b>
<b>5.5</b>	<b>Passenger Car Safety Standards applicable to Heavy Rail Track</b>	<b>National Standards</b>
<b>5.6</b>	<b>Conflict between vehicle clearance &amp; passenger Access. Req.</b>	<b>European Solution</b>
<b>5.7</b>	<b>LRT Access to Langley Town Center</b>	<b>Master Agreement requirem.</b>
<b>5.8</b>	<b>Grade Crossing Warning System/Highway Traffic Interface</b>	<b>New System in place in Lang.</b>
<b>5.9</b>	<b>Safety aspects of Pedestrian and Private Crossings</b>	<b>Not a problem w freight traffic</b>
<b>5.10</b>	<b>Availability of Competing Sources for Compliant Rail Vehicles</b>	<b>Numerous Manufacturers</b>
<b>5.11</b>	<b>Utilities Relocations – Cost and effects on construction sched.</b>	<b>Not required</b>
<b>5.12</b>	<b>Property Acquisition – Cost and effects on construction sched.</b>	<b>Not required</b>
<b>5.13</b>	<b>Environmental Issues – Floodplain and Wetlands Construction</b>	<b>N/A – Active Freight Op. Now</b>
<b>5.14</b>	<b>Environmental Issues – Train Operat. &amp; Passenger Stat. Facilit.</b>	<b>N/A – Active Freight Op. Now</b>
<b>5.15</b>	<b>Environmental Issues – Noise and Rail Line Maint. Restrictions</b>	<b>N/A – Active Freight Op. Now</b>
<b>5.16</b>	<b>Environmental Issues – Visibility, Safety and Veg. control Restr.</b>	<b>N/A – Active Freight Op. Now</b>
<b>5.17</b>	<b>Compatibility of Rail Signals/Com. Syst. W transm. Lines –</b>	<b>N/A</b>
<b>5.18</b>	<b>Security Issues</b>	<b>Normal Mainten Req.</b>
<b>5.19</b>	<b>Track Maintenance Standards for LRT DMU/EMU vehicles</b>	<b>Recommend Hydrail</b>

**Transportation Review Foundation Paper #4 Partnership FVRD / BC Transit, TransLink & B.C. Government – (Urban Systems circa 2008 / Final Report 2010) specific to the Interurban Corridor.**

- ***This report and its assumptions regarding the prospects for an inter-regional rail service are frankly not based on accurate information in any respect. A complete objective analysis can be provided but primarily by its own admission their report was not a feasibility study, but in their opinion a high-level screening of these options which we would suggest is very inaccurate. As the Mayor of the Township of Langley and member of the TransLink Mayor's Council we were not approached to provide input into this study, to the contrary I wrote a letter to the then CEO of TransLink, Ian Jarvis, in respect to this issue and it is clear they did not incorporate any input from the Surrey UMA report or the Langley UMA report (circa 2008 / 08) that dealt with Passenger Rail. This report was produced without any recognition of the renewal of Passenger rights within the Joint Section, and the fact that it is an operational railway in every respect causing a significant error in calculations and conclusions.***
- ***Its conclusions were based on the limited and error filled DRL Solutions report of 2006 by the consultant's own admission (as described above)***
- ***Hydrail was not a consideration nor was it available at the time of this report. They were limited to only considered Heavy Rail Diesel Push Pull, Heavy Rail Diesel Multiple Unit (DMU), Light Rail Diesel Multiple Unit (DMU) and Light Rail Electrical Multiple Unit..***
- ***Considered extension of West Coast Express from Mission over to Abbotsford as part of this study which makes no sense given the exorbitant lease cost TransLink are paying CP Rail annually for the existing WCE line. It also relies on the ongoing (renewable) contract with CP and does not provide access to a destination most people want to go who live South of the Fraser, 1.2 million compared to 372,000 North of the Fraser.***
- ***As stated in the introduction, this report was done prior to the discovery of NO COST Passenger rights and Hydrail technology that largely negates the necessity of relocating BC Hydro's transmission line while providing a clean, zero emission solution.***
- ***The number of potential stations of 9 is low as we suggest 12 – 14 would be required. Speed is correct but train type of Diesel would be incorrect primarily due to its negative affect on the Fraser Valley Airshed.***
- ***Annual ridership numbers of 1,703,000 are substantially wrong compared to any formula you can develop looking at ridership North of the Fraser on WCE.***
- ***Potential of Double Tracking mentioned. FACT Any double tracking will be at the cost of CP Rail, unknown at time of this report.***
- ***Track upgrade a non-issue. – On or about 2015 / 16 BNSF who ship coal to Roberts Bank from the US through White Rock asked and received permission to return their trains to the states through Abbotsford on the Interurban line. There were about 3 – 4 unit trains per day approx. 12,000 Ft. in length over a 3-month period that returned their trains on this corridor. The length, weight and configuration of these trains provides substantial proof of our argument that track upgrades are***

*not required. Cost of stations which would be track platforms (like Europe) would be required and are built into the costs of the Leewood report as are rolling stock and automated road gates.*

- *Operating costs are in question as are the revenue estimates based on what we see is a dramatic miscalculation.*
- *Cost per ride and therefore Cost per service Hour are dramatically incorrect.*
- *Suggestion that this line would serve as a Commuter rail service is incorrect, it is a Community Rail Service serving 16 Cities/Towns/Communities/Municipalities, 14 Post Secondary Institutions, an International Airport, Industrial Parks and much more with the Rail Line serving as the Spine and a community Bus Service feeding the Rail Line as the Ribs. Just like SkyTrain.*
- *The economic evaluation of the Interurban flies in the face of reality of today for a wide variety of reasons.*
- *One must ask the question, what expertise did Urban Systems have to be selected to conduct such an evaluation?*

**Summary:** We are firmly of the opinion that our proposal to reactivate the Interurban Corridor with Hydrail Passenger Rail Technology is something that makes abundant sense. Having said that, we, after many years of working on this campaign and considering all the relevant changes over the past decade believe there must be a well thought out and well-constructed Public Engagement Process through Public Meetings between Surrey and the City of Chilliwack.

Over the past decade consider the population growth in the Fraser Valley, the explosion in property values that has driven much of your population growth and the traffic congestion that has followed. Now consider, where another 1,000,000 people and 500,000 new homes are going to go over the next 40 years? It is time that a lead is taken now in finding a solution to all of our collective problem. The total solution is not adding an HOV lane each way on Highway 1 or adding an Express Bus – We need much more to solve this problem, we believe a reactivated Interurban will help considerably at a very cost effective price.



## South Fraser Community Rail

*"Hydrogen iLink Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

### Ridership Calculations

**The following is our calculations for ridership for any South Fraser Community Passenger Rail Service between Chilliwack and the Scott Road Skytrain station. A number of assumptions must be considered between what the reality is with the West Coast Express (WCE) and any potential service on the south side of the Fraser.**

I know our comparison North and South of the Fraser cannot be directly comparable as they claim that 40% (a number that is frequently banded around) of boardings in Mission come from Abbotsford? All of this aside the Fraser Valley Strategic Review (FVSR) numbers do not make any sense. A parallel comparison can be used. Consider the following initial facts -

#### RE the West Coast Express –

- 2017 West Coast Express Annual Boardings **2,322,892**
- Population North of Fraser 372,277
- **Daily** Boardings as a % of the population who board / use WCE N of River 2.52%
- Revenue per individual boarding \$6.10
- Operating Cost per Boarding \$8.02
- Total Cost per Boarding \$9.76

NOTE: The CP lease cost, not shown in financials provided through FOI would add \$8.60 per boarding, if you added this plus the total cost of \$9.76 you are looking at \$18.36 per boarding subsidy?

#### RE the Interurban -

- Boardings on Interurban based on participation numbers and population above! 7,479,712  
NOTE: This number is derived by extrapolating the above N. of River boardings against population numbers and equating same S. of River.
- Conservative Boardings South of the Fraser for this purpose. **5,500,000**
- The Fraser Valley Strategic Review used this number as their projected use number. 1,768,000 ????  
NOTE: How was this calculated?
- Population South of the Fraser 1,200,000
- Daily Projected % of population 2.52%
- Revenue per individual boarding \$6.10
- Operating Cost per Boarding ?
- Total Cost per Boarding ?

**NOTE / Thoughts?** - Even if you used half of the % that are using for the service North of the river you could project a ridership of 3,060,379. Extrapolating the above, revenue would total -

- Total revenue North of the River 2,322,892 @ \$6.10 = \$13,380,000

- Total revenue South of the Fraser using their projections 1,768,000 @ \$6.10 = \$10,784,800  
NOTE: The strategic review comes out with a ride cost of something in the neighborhood of \$70.00 a ride but does not account for any revenue?
- Total revenue S. of the Fraser using WCE pop. useage % 6,120,758 @ \$6.10 = \$37,336,623
- Total revenue South of the Fraser using 1/2 of the WCE population useage % 3,060,379 @ \$6.10 = \$18,668,311

**Important:** We believe it is a reasonable theory that the ridership of rail transportation South of the Fraser should mirror that North of the River. Now we would give you the fact they are not directly comparable given Commuter Rail vs Community Rail and a certain amount of crossover traffic, however that issue goes both ways, but I would strongly suggest that it can be used as a rough guide. As the above clearly outlines, IF you use ½ of the North of the River ridership %, it makes a substantial difference to their conclusions; add to that their out of line costs to reactivate the South of Fraser service, their lack of recognition of the good condition of the existing rail corridor, their lack of recognition of the existence of NO Cost for use of Passenger Rights, their inclusion of using heavy rail propulsion and not Hydrail added to the exaggerated issues and costs outlined, this review is totally out of line.



## South Fraser Community Rail

*"Hydrogen iLink Passenger Rail, Scott Rd. SkyTrain to Chilliwack" #connect the valley*

### Summary -

### Our Ask?

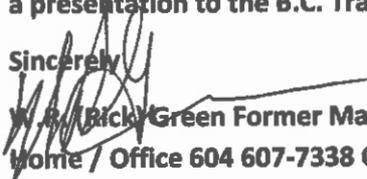
Our Ask is very non-threatening – It is about reaching out to the residents of Surrey, White Rock, City of Langley, Township of Langley, Abbotsford and the City of Chilliwack. This reach could be expanded to reach other communities within the Fraser Valley Regional District as well.

We fully understand the regional responsibilities between Metro Vancouver and the Fraser Valley Regional District and their two Transit providers – TransLink and B.C. Transit. There must be cooperation between the two to be able to solve our serious Transit issues that are causing gridlock daily. To that end we are asking the Fraser Valley Regional District to take the lead through B.C. Transit and to coordinate a series of at least six well publicized and advertised Public Engagement Meetings between Surrey and Chilliwack. This move is essential to be able to move forward; to recognize the serious problems and need for a healthy environment and accessible and affordable transportation in reducing the congestion that plagues the Valley daily. Once again to our ASK –

- By resolution of the FVRD Board of Directors to meet or write to the B.C. Transit Directors requesting a Public Engagement Process with respect to the Reactivation of the Interurban Corridor specifically. That the community is involved in the make up of this process so that this process and results will be respected by the communities it serves.
- By resolution of the FVRD Board of Directors to meet or write to TransLink's Mayor's Council requesting that they become actively involved in this process. If rejected by TransLink that B.C. Transit and the FVRD move forward on an independent Public Engagement Process.

Thank you again for your time and consideration of our proposal and presentation today. The Fraser Valley Regional District and its citizens have for far too long been ignored on such a serious livability issue. If we can be of further assistance, please contact us at any time. We would be pleased to make a presentation to the B.C. Transit Board of Directors if requested.

Sincerely

  
W. B. (Rick) Green Former Mayor, Township of Langley 2008 - 2011

Home / Office 604 607-7338 Cell 604 866-5752

[creeksidefarms@shaw.ca](mailto:creeksidefarms@shaw.ca) / [southfrasercommunityrail@shaw.ca](mailto:southfrasercommunityrail@shaw.ca)

On behalf of The South Fraser Community Rail Committee Management Group the Hydrogen iLink Line Founding & Action Group Members: Rick Green, Lee Lockwood, Roy Mufford, Peter Holt, Brit Gardner, John Vissers, Scott Thompson and Tony Edgar

- Professor Condon, University of British Columbia, James Taylor Chair in Landscape Patrick and Liveable Environments.
- Bill Vander Zalm former Premier of the Province of British Columbia 1986 - 1991

To: CAO for the Regional and Corporate Services Committee

Date: 2019-07-09

From: Meghan Jackson, Parks Technician

File No: 6120-02-Regional Trail

**Subject: FVRD's Trail Network Group**

---

## RECOMMENDATION

**THAT** the Fraser Valley Regional District Board expand the scope of its Trail Network Group to a regional scale to ensure representation from organizations involved in the maintenance and/or management of trails within the entire geographic area.

### STRATEGIC AREA(S) OF FOCUS

Support Healthy & Sustainable Community  
Support Environmental Stewardship  
Foster a Strong & Diverse Economy

### PRIORITIES

Priority #5 Outdoor Recreation  
Priority #4 Tourism

## BACKGROUND

In April 2015, the Fraser Valley Regional District (FVRD) Board directed staff to create and lead a local Trail Network Group in response to a growing demand for a forum to discuss the planning, creation, and maintenance of non-motorized trails specifically in the Chilliwack area. Since then, the FVRD has been hosting quarterly meetings that are attended by multiple organizations, including:

- City of Chilliwack
- BC Parks
- Recreation Sites and Trails BC
- Trails BC
- Chilliwack Outdoors Club
- Chilliwack Parks Society
- Fraser Valley Mountain Biker's Association
- Tourism Chilliwack
- Coastal Fire Service
- People of the River Referral's Office

These meetings are two hours in length with approximately 10-20 attendees per meeting (attendance is entirely voluntary). They typically start with a presentation on a topic of interest to the group, followed by round table project updates and discussions. Past presentations have included topics such as:

- Considering archaeology in project planning
- Aboriginal Youth Mountain Bike Program
- BC Wildfire Service

- Trail and traffic counters

## **DISCUSSION**

These meetings have proven to be an effective venue for agencies to network, problem solve and collaborate regarding trail development and maintenance. Trail development is an involved process, which includes: route planning, First Nations referral, environmental assessment, formal approvals, signage planning and installation, and finally construction. Once a trail is built, ongoing maintenance is required, including: vegetation removal, erosion mitigation, danger tree assessment/removal, trail counters, and communication with user groups.

Interest in attending these meetings has increased, and there is now a growing need to expand the group's scope to include organizations from outside the Chilliwack area. FVRD trail counter statistics indicate an upward trend in the number of trail users, and the *Regional Parks Strategic Plan 2014-2024* expects that the "demand for outdoor recreation will continue to climb at a rate faster than population growth". Given this demand, it is not surprising that the interest in attending these meetings has increased. Some of the benefits of expanding this meeting's geographical scope would be greater potential for region-wide collaboration on trail projects, increased opportunity to network with and learn from other agencies doing similar work, and would allow the FVRD to be more aware of trails projects happening in the region.

There are several other organizations involved in trail development and maintenance outside of the Chilliwack Area, including the Parks and Trails departments in FVRD's member municipalities, which would be great additions to the group. Also, with the FVRD's expanded involvement in Sumas Mountain Regional Park, increased opportunities to collaborate with City of Abbotsford staff would be ideal. Other groups to invite to the table would include the Hope Mountain Centre for Outdoor Learning, New Pathways to Gold Society, and Cascade Lower Canyon Community Forest.

## **COST**

There are no new costs associated with expanding the scope of participants in the Trail Network Group.

## **CONCLUSION**

The FVRD's quarterly Trail Network Group has proven to be useful for, and popular amongst, organizations managing and/or maintaining non-motorized trails in the Chilliwack area. By expanding the scope of this group and inviting organizations that fit these criteria from within the Region, there are greater benefits to be realized. The inclusion of groups from the rest of the Fraser Valley would further encourage collaboration amongst agencies involved in trail development, promoting trail connectivity and supporting outdoor recreation and tourism in our Region.

**COMMENTS BY:**

**Stacey Barker, Director of Regional Services:**

Reviewed and supported.

**Mike Veenbaas, Director of Financial Services:**

Not available for comment.

**Jennifer Kinneman, Acting Chief Administrative Officer:**

Reviewed and supported.