

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 11th, 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 / 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 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

South Fraser Community Rail

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

Press Release – January 6th, 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 5th, 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



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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.

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" The Plan "

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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 232nd St in Langley and Annis Road in Chilliwack – a four lane stretch, crashes rose from 510 in 2015 to 1,100 in 2017!**











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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.

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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 202nd to 216th plus NOW the just added 216th to 264th - 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?

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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 7th, 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!**





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The “Smart Way”

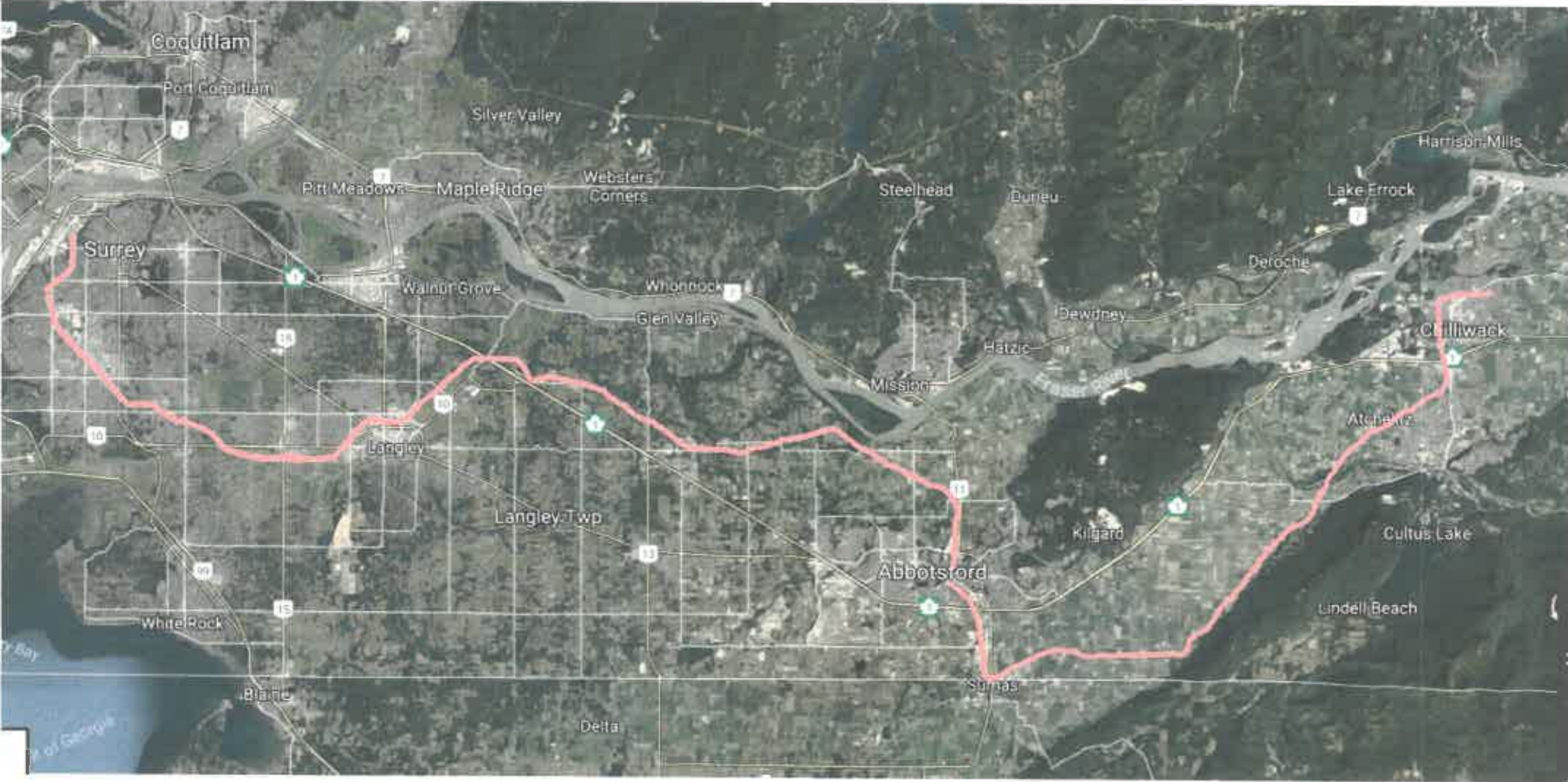
**To Solve the South of Fraser
Transportation and Transit
Deficit!**

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Reactivate the Interurban Passenger Rail Corridor....

99 Kms at NO Cost for it's use!



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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!**

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When is it available to re-activate?

NOW!

What has been the hold up all of these years?

A few recent and interesting developments....

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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!

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**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?

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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



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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.**



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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!**

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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.**













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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!**









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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!**





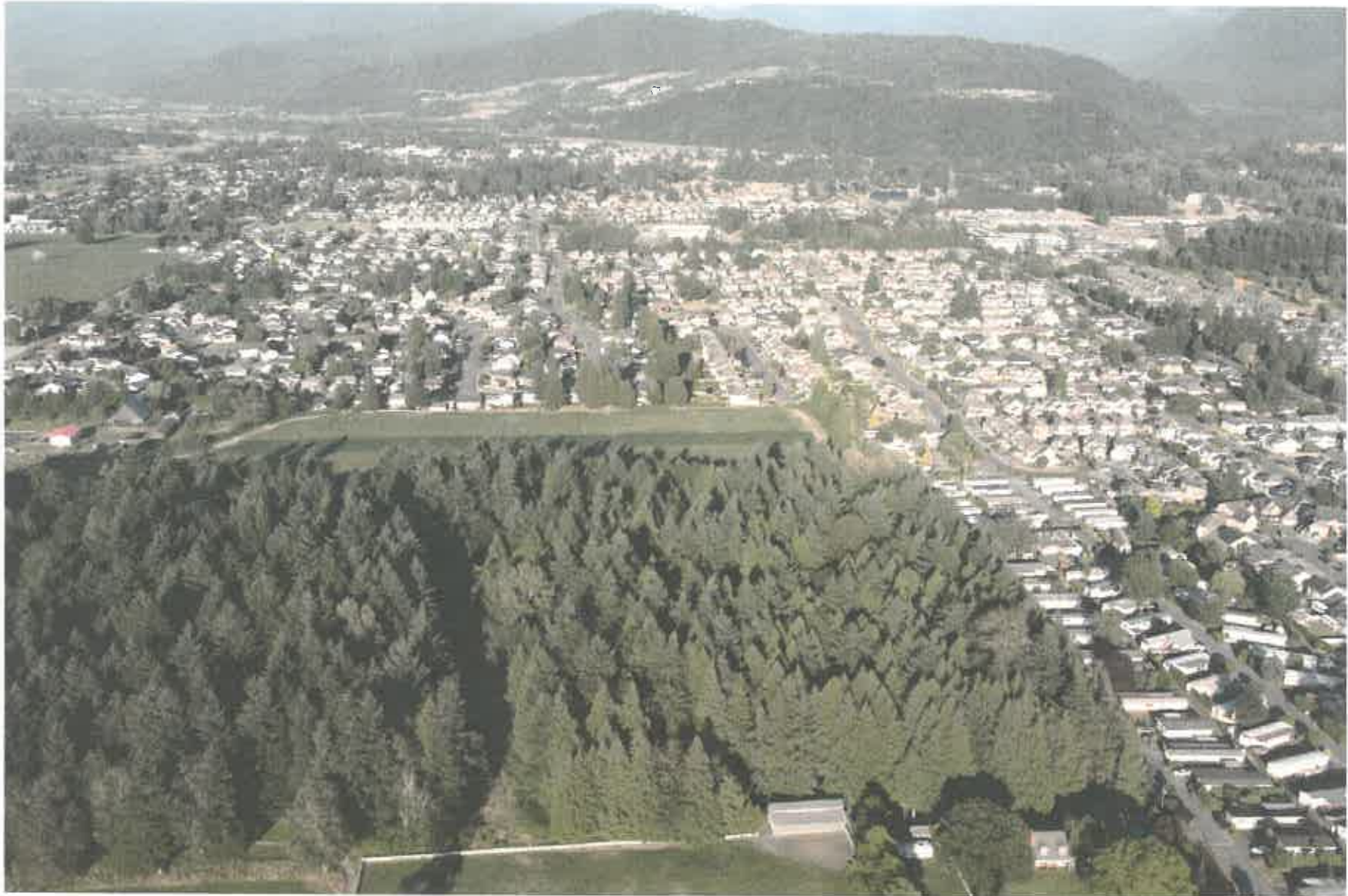


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In Chilliwack

- **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!**













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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.**



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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!**



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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!**

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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.

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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.

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So we have listed the Practical Benefits....

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

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

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

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**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?

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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!**

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<u>Option 1</u>		<u>Est. Population.</u>	<u>Est. Cost.</u>	<u>Per Capita Cost</u>
Original LRT / 104 th & King George Blvd	Guildford	60,745		
	Whalley	102,555		
	Newton	<u>149,040</u>		
		312,340	\$1,600,000,000	\$5,122.62
Option 2				
Skytrain down Fraser Hwy to Fleetwood	Fleetwood	<u>62,735</u>		
		62,735	\$1,600,000,000	\$25,504.10
Option 3				
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

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<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

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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!

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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!

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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

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

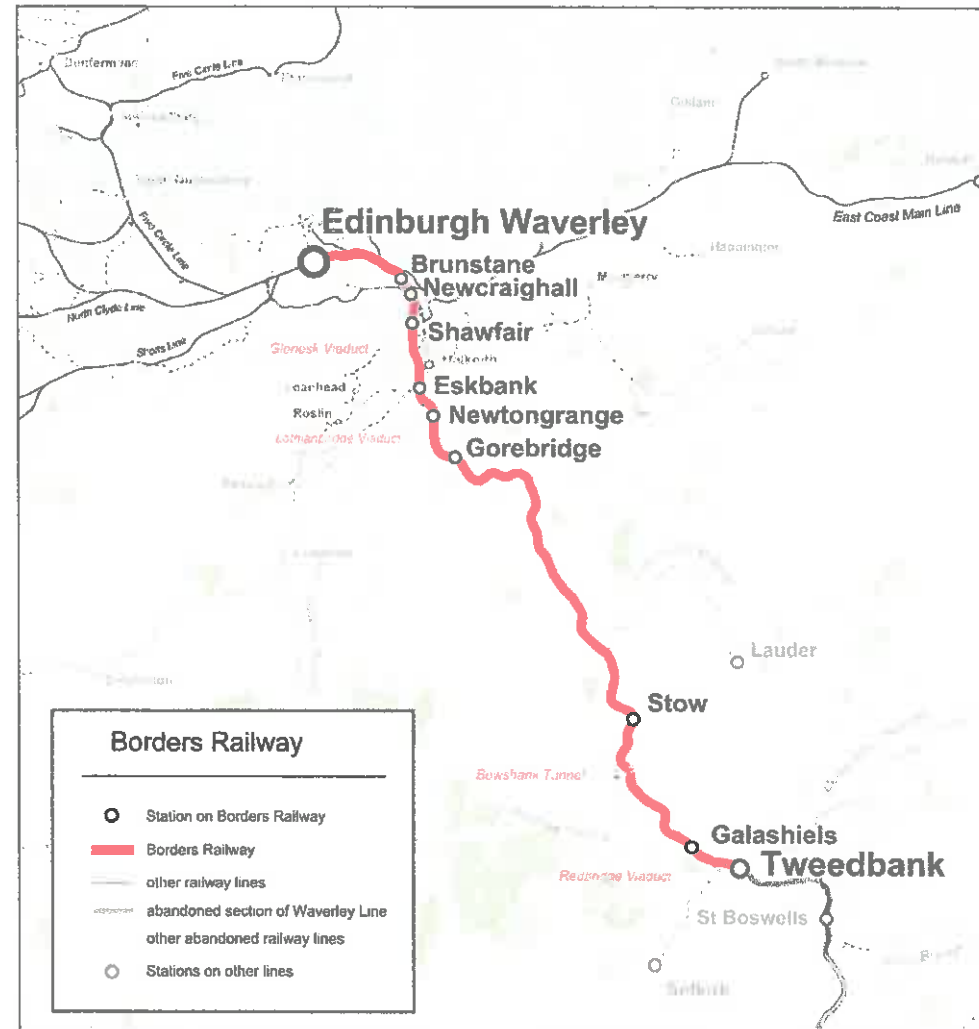
**Comparison between the Scottish Border
Rail project with the BC Hydro owned
interurban corridor running from New
Westminster to Chilliwack**

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)	\$130.0M/Km (Total \$1,430 Million)
Canada Line	19.2 km Light Metro-automated/underground/elevated/ surface (opened 2009)	\$107.0M/km (Total \$2,054 Million)
Surrey Center / Langley City	<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!	\$157.1M/km (Total \$2.6 Billion)
NEW – Inter-Urban	<u>99.23 kms</u> Scott Road to Chilliwack Open up the Fraser Valley	\$12.5M/km (Total \$1.240 Billion)

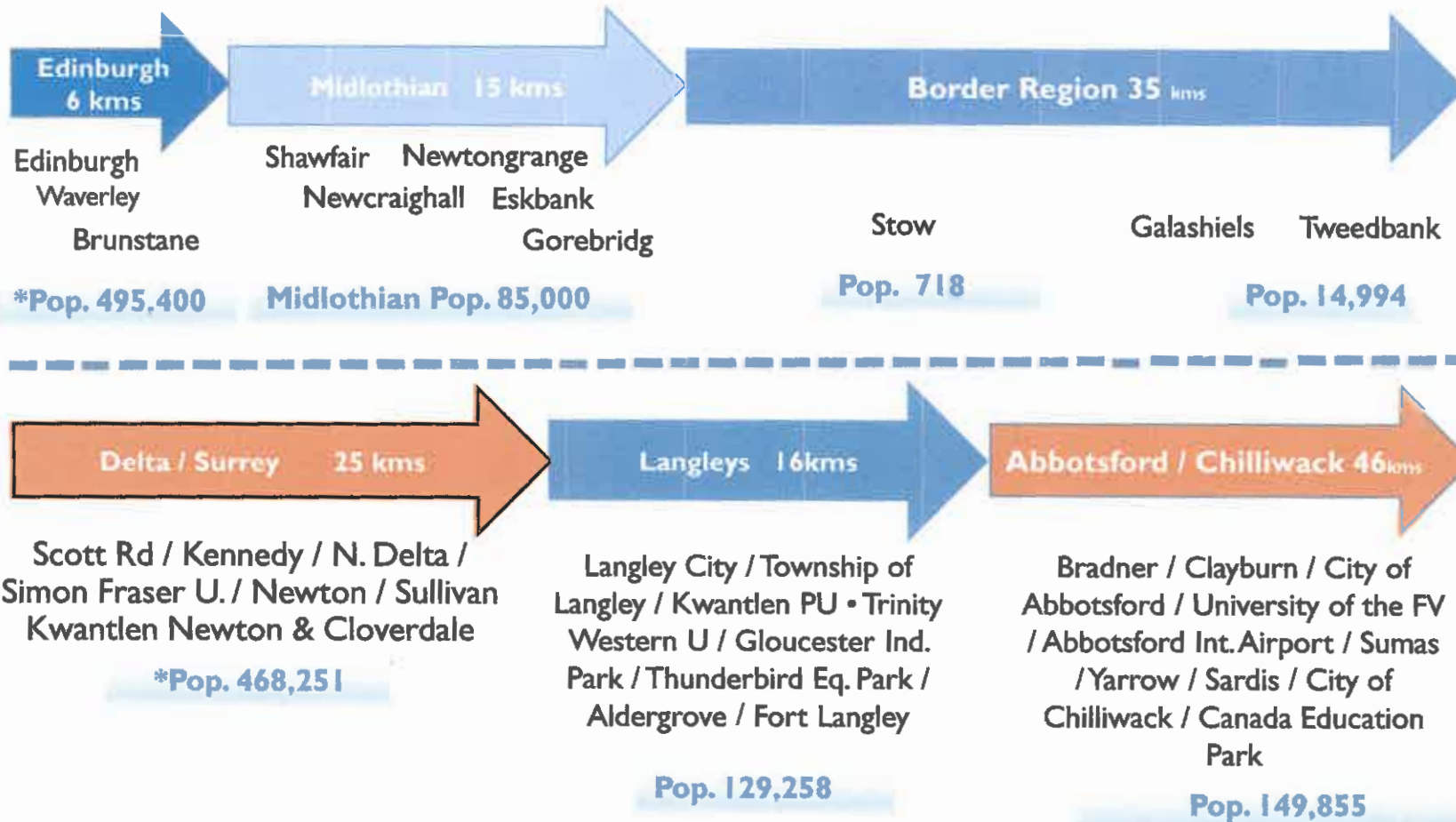
Scotland UK (heavy rail)

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	\$9.5M/Km (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 th 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

www.campaignforbordersrail.org

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 / 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
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 16th, 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 11th, 2011 advising them of our serious displeasure with this report. All of that is on record in a letter dated January 13th, 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 232nd 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 26th, 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 16th, 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:

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

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.



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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

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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