Subject: RE: Office of the Ombudsperson - File: 21-188229 (Comox Valley Conveyance Pipeline Project)

From:
Sent: April 2, 2021 3:09 AM
To: Russell Dyson <rdyson@comoxvalleyrd.ca>

Subject: Office of the Ombudsperson - File: 21-188229 (Comox Valley Conveyance Pipeline Project)

CAUTION! EXTERNAL EMAIL

Mr. Dyson:

Below you will find the message that I received from Yvette Closson, the Early Resolution Officer at the office of the BC Ombuds Person.

Following her advice, hereby I request a response by email to my concerns as well as the requested information regarding the Conveyance Pipeline Project that is being executed by the Comox Valley Regional District under your command as the CVRD's CAO.

The specifics of such concerns and information are clearly defined in the attachment, which I hope you will read in its entirety, related to the decision made by The CVRD staff, and then recommended to the Sewage Commission, with your concurrence, to discard the option of building a separate wastewater treatment plant in the city of Courtenay or anywhere else in the valley, and build a conveyance pipeline instead. As you recall, I requested to appear as a delegation to the CVRD Board, but my request was denied, and was forced to appear as a delegation to the Sewage Commission, right after the election of the new chair of the commission, and was given 10 minutes to present my case to a very scarce audience. No comments to my report were received from staff, yourself, Dough Hillian, who apparently was forced to make that decision only after two weeks as chair of the Sewage Commission. Yes, I have seen the entire video recording of the meeting during which the decision was made based on the recommendations of the CVRD Staff and your concurrence.

The main concern is that I have been misinformed of the actual cost of a new wastewater treatment plant by Kris La Rose; during the open house at the CVRD open house and by Marc Rutten in several occasions.

I request:

- An official statement of the reasons to reject the construction of a new, and all the documentation and estimates received to support such decision, not sufficient to say that it is “three times more expensive” as expressed by Kris La Rose, or “it is too expensive, look at what the city of Victoria is spending, 800 million dollars” from Marc Rutten.

Description	Capital Cost	Investment Year	Renewal Frequency	Renewal %	Total Power (kW)	Labour hrs/day
New Courtenay - High Pressure Increase	$29,400,000	2020	25	40%	900	3
Downgrade Jane	$2,362,500	2020	25	40%	25	0
New Jane - Moderate Pressure Increase	$3,850,000	2020	25	40%	425	3
Overland Jane to connect to FM (Long Distance to North)	$4,804,800	2020	60	100%	0	0
Overland Forcemain North from Courtenay to CVWPCC	$27,489,000	2020	60	100%	0	0
New Courtenay WWTP	$105,000,000	2020	100	100%	2000	24
Old Jane to New Jane	$51,744	2020	60	100%	0	0
KFN Pump Station and FM to Courtenay	$616,000	2020	60	100%	0	0
Total Capital Cost	$173,574,044					

- All documentation and reports that this table is based on, specially, the 105 million dollars for the new Courtenay WWTP that was rejected based on cost alone, which has not been supported with estimates from WWTP suppliers.
- Design criteria for the flow at the base of conveyance pipeline that, according to Kris La Rose, is 500 liters per second
- Design criteria to determine the diameter of the pipe to be 34 inches
- Considerations made to determine the pumping head that is required at the Courtenay Pumping Station
- Flow rate, size, and number of the pumps at the Courtenay Pumping Station
- Methodology and calculations to determine the amount of electricity that the Courtenay Pumping Station will require and the total carbon footprint of such operation on a yearly basis.
- Rate at which all electricity used by the CVRD is charged by BC Hydro, that is assumed to be all across the board, including the WWTP
- Flow rate, size, and number of the pumps at the Jane Pumping Station
- Carbon footprint and embedded carbon of the entire construction and materials used
- Daily flow into the WWTP in Comox with maximum, minimum and average for the last 5 years
- Methodology used to determine the 24,000 m3/day treatment demand.
- The report from the sewage pipe expert you hired to determine that the pipe along Willemar Bluffs needs replacement, including not only the reasons but also the report on the damage the existing pipe presents.
- The reasons behind the reluctance to use the water from the treatment to be used as irrigation water, considering that we are an agriculture community and irrigation water is not only necessary, is becoming really scarce; the water chemical analysis should be part of the information provided, and the reason why, discharge of the treated water should no allowed in the Tsolum River, we all know that Cumberland has been discharging their treated wastewater into the Trent River for more than 19 years, knowing that the Trent River (Popularly known by the Royston residents as “The Shit Creek”), that is a very popular recreational destination for local and out of town visitors during the summer for bathing.

Also, please arrange with Jake Martens, for me to be added to the agenda for the next Regional District Board Meeting, so you have an opportunity to present your concerns to the Board, more than 10 minutes will be required.

I trust you will take notice this time, a project of this size and consequences for future generations deserve your personal attention; Sustainability and 73 million dollars of our money are very serious matters.

Of course I have all the messages that have been exchanged with the CVRD Staff and all the reports and information background to support my concerns.

Please acknowledge the receipt of this message and provide a promise date for the delivery of the requested information.

The obvious outcome of my quest is that the CVRD will reconsider the decision to build the pipeline and the recognition that building a new plant would provide a sustainable, financially viable and environmentally sound solution to the wastewater treatment requirements for the city of Courtenay and eventually the entire Comox Valley, and fulfill the commitments made in the Official Community Plan and the Paris Accord.

I wish you enough.

Eduardo Uranga

Eduardo Uranga

From: Info-OMBD <Info@bcombudsperson.ca>
Sent: March 25, 2021 4:51 PM
To: [redacted]
Subject: Office of the Ombudsperson - File: 21-188229

March 25, 2021
File: 21-188229

Eduardo Uranga
COURTENAY
By Email: [redacted]

Dear Eduardo Uranga:

We have received a copy of your email dated February 25, 2021 addressed to Premier John Horgan, MLA Ronna-Rae Leonard, the City of Courtenay Mayor and Council, staff at the Comox Valley Regional District amoung others. We assume that you copied our office on the email for information purposes only. The Ombudsperson, therefore, will not be taking any action at this time.

If you wish to make a complaint to our office after receiving a response from the Comox Valley Regional District, **you may complete the online complaint form available on our website at** https://bcombudsperson.ca/online-complaint-form/**. Our Office will review the complaint to determine what role our office may have in the matter.**

Some information about the Office of the Ombudsperson may be helpful. The Ombudsperson Act, that guides our work, requires that we ask people who contact our office, to first contact the organization/ government agency their concerns are about, before we accept the complaint. This is often the most efficient and effective way to resolve complaints. (See paragraph 13(c) of the *Ombudsperson Act*, below).

From your email, I understand that you have in communication with Marc Rutten, General Manager of Engineering Services and James Warren, Deputy Chief Administrative Officer. This was an appropriate step. If the response you receive from Marc Rutten and James Warren does not resolve your concerns, you may escalate your concerns to Russell Dyson, Chief Administrative Officer at rdyson@comoxvalleyrd.ca **or Tel: 250-334-6055. I note that you have been in communication with him already. You may follow up with him to request a response by email or in writing to your concerns. You may also contact Jake Martens, General Manager of corporate Services to enquire about being added to the agenda for the next Regional District Board Meeting, so you have an opportunity to present your concerns to the Board.**

As there is a process available to you that may resolve your concerns, we are declining to accept your complaint at this time.

If your complaint is not resolved after completing Comox Valley Regional District's process, please contact us again and we will consider your concerns further. If you return to our office and submit an online complaint form, please attach copies of the responses you received from the Regional District to your concerns.

Please refer to our website at https://bcombudsperson.ca/ and the enclosed brochure for more information about the Office of the Ombudsperson.

Yours sincerely,

OMBUDSPERSON
BRITISH COLUMBIA

Yvette Closson
Early Resolution Officer
PO Box 9039 Stn Prov Govt Victoria BC V8W 9A5
Tel: (250) 387-5855 or Toll Free: (1-800) 567-3247
www.bcombudsperson.ca

Enclosure: Brochure

13 The Ombudsperson may refuse to investigate or cease investigating a complaint if, in the opinion of the Ombudsperson, any of the following apply:

(c) the law or existing administrative procedure provides a remedy adequate in the circumstances for the person aggrieved, and, if the person aggrieved has not availed himself or herself of the remedy, there is no reasonable justification for the failure to do so;

Our office is located on the unceded traditional lands of the Lək̓ʷəŋən (Lekwungen) People and ancestors and our work extends across the homelands of the Indigenous Peoples within what we now call British Columbia. We honour the many territorial keepers of the lands and waters where we work.

Email communications with the BC Ombudsperson are subject to our email policy. The BC Ombudsperson cannot ensure or guarantee the security of email communications.

This email is private and confidential, and is protected under the BC Ombudsperson Act. *If you are not the intended recipient, please delete this email immediately and notify us that you have received it in error by contacting us at mail@bcombudsperson.ca or by phone at 1-800-567-3247.*

This email has been checked for viruses by Avast antivirus software.
www.avast.com

Dear Resident of the City of Courtenay or the Town of Comox:

I hope you decide to read my report in its entirety.

After attending the February 9th, 2021 meeting of the Sewage Commission and present my observations as a delegation, a message from the CVRD staff to inform me of the decision and today, watching the video of the February 23rd, 2021 Comox Valley Sewage Commission, It is now apparent that the Comox Valley Regional District has a total control on how decisions are made for us citizens in the Comox Valley, I consider that completely unacceptable. It seems that all decisions are made based on staff recommendations, not on the willingness to take responsibility of a decision made based on personal analysis, research and fact checking.

It is also evident that most residents in the Comox Valley do not think their voice will be heard when they disagree with the opinion of the CVRD staff. In fact, the CVRD staff seems to think that they can ignore our opposition to what they believe needs to be done.
Why is the Town of Comox and its citizens forced to deal with the City of Courtenay's excrement?

We are in a hole; we need to stop digging. This pipeline is a bad step in the wrong direction. We have better technology in 2021 than 40 years ago, why not adopt it?

A new wastewater treatment plant and reuse of the treated water for irrigation in agriculture is a much better option. With the construction of a new plant, the nightmare of the construction of the sewer pipe through the town of Comox disappears.
To make my point more palpable, let us start with a quote from the 20200305 Dyson SR CVSS LWMP Conveyance Short List Options report from the CVRD Staff to the Sewage Commission:

Sustainability Strategy 2050 Targets

- Climate 80 per cent reduction in greenhouse gases from 2007 levels.
- Energy 50 per cent decrease in per capita energy use and/or will not increase energy use from current levels.
- Water All wastewater treatment in the Comox Valley will be advanced or reuse level.

Sustainability Strategy Goals & Objectives

- 2.2.2. Existing local government buildings and facilities are retrofitted to achieve a 25-30 per cent improvement in energy and water efficiency.
- 3.5. Liquid waste is handled to minimize negative impacts and to turn wastes into resources.
- 3.5.1(a). Consider amending approach to Sewage Master Plan to make it a comprehensive LWMP that addresses all aspects of sustainable wastewater management. Ensure any update to Sewage/liquid waste management plans are aligned with sustainability objectives and targets.

Citizen/Public Relations

- Public engagement is a cornerstone of the LWMP process, and indeed is written into the Environmental Management Act.
- The philosophy adopted for this LWMP is that each major decision contemplated by the TACPAC will be taken out to the public for input. The input from the public is then brought back to the TACPAC for review and consideration in their decisions and recommendations to the CVSC. The CVSC makes the final decisions based on recommendations from the TACPAC.
- This decision by the CVSC on the conveyance short list will be communicated to the public and TACPAC as part of the ongoing public engagement process.

What happened to aspiration of the Comox Valley residents to protect the environment and reduce our impact? What value has our commitment in front of the actions taken by the CVRD Staff?

This project is flushing all this down the sewer, literally.

What do we have today?

A 39-year-old Sewage plant in Comox that uses 50-year-old technology and dumps the semi treated Sewage in the Georgia Strait at the expense of the shellfish industry and the health of the ocean. Such plant needs to be replaced, not expanded to keep using the same 40-year-old technology at great expense.

The Regional District of Comox Strathcona made a mistake 39 years ago, why do you want to perpetuate a wrong decision and waste the opportunity to act on something that you have the power change for the better?

I was part of the group of valley residents that opposed the project in 1982, especially the construction of the conveyance pipeline, knowing the devastating effect that it was going to have in the premature erosion of the Willemar Bluffs, among other problems. We were not heard and now we can see the evidence of the huge mistake made by the regional district, and the lack of accountability, even after the adverse report from the Ombudsman to the BC Legislative Assembly in 1997. This will not happen again.

Eduardo Uranga's Credentials: (intellectual discrimination will not be tolerated)

- Chemical Engineer
- Computer Science
- Data Scientist
- Database miner
- Irrigation specialist
- Conservation, efficiency, and renewable energy specialist
- Ruth Master's Degree in Shit Disturbing

Why am I doing this?

- To oppose the decision made by the Sewage Commission, based on CVRD staff recommendation, and the advice of a consultant whose primary interest is to sell a pipeline, not to consider the construction of a new wastewater treatment plant as a viable option to the Conveyance pipeline.
- Such pipeline is an economic aberration that will have a massive impact on the Comox Valley's environment for many years to come; the effects are unpredictable, but we, the residents of the Comox Valley, will demand accountability from the people that make such decision.
- To request the opportunity to present a proposal to solve the problem with the construction of a 25,000 m3/day state of the art wastewater tertiary treatment facility, that will have the capacity to treat the wastewater of the projected 66,000 residents of the regional district service area until the year 2060, for which a builder, a site, and discharge point have been determined and quotations have been obtained. The cost of this plant is to be less than 25,000,000 CAD.

Issues that need to be addressed:

- Why are the needs of Sewage treatment for the city of Courtenay tied to Comox's?
- The cost of the plant was the only consideration to reject the option, nothing else was mentioned in the report presented by the consultant on environmental impact, daily life disruption during construction, or the perpetuation of an odor problem that will continue to exist.
- I oppose the construction of the pipeline based on the uneconomical and environmental impact of such project.
- A new wastewater treatment plant is the only reasonable option.
- The CVRD staff is promoting something for which they have no evidence to replace or economic justification.
- The consultant company WSP is not an expert in wastewater plants. They have no track record of it.
- The consultant is a pipeline builder.
- There was no consideration to the carbon footprint of the pipeline construction or operation.
- There is no consideration to the embodied carbon of materials used to make the pipe itself, which are staggering.

- No consideration to the CO2 emissions during the construction of the pipeline.
- There was no emphasis in the number of resident hours wasted and the 18-24 months that it will take to build it.
- The use of the treated water recovery for irrigation was not given the importance that it deserves, including the use of the nitrogen and phosphorous it contains.
- The demand for wastewater treatment from the city of Courtenay's residents is grossly exaggerated.
- The existing pipeline in use shows no signs of damage after 39 years, what is the urgency to replace it? Why was not done 20 years ago? could not wait for another 20 years?
- The average use of potable water in Canada is 250 liters per day per person; 454 in the Comox Valley; should not be going in that direction?

The big question: why was the option to build a new plant rejected by the Sewage commission since is the obvious best alternative? The existing Wastewater treatment plant (the Comox Valley Water Pollution Control Center, CVWPCC) is 39 years old, I was here when it was built. It is in the process of getting a major upgrade to accommodate the obsolescence of the treatment method and the population growth, at an exceptionally large expense. A new plant will take the pressure from that plant and could be easily accommodated in the new plant if the water saving measures are implemented.

I have made every possible attempt to address the issues with the Engineering Department at the CVRD, Marc Rutten, the manager; and he has stonewalled me. He communicated noticeably clear that if I wanted information from him, I needed to go through the freedom of information act procedure, that we all know takes a long time and is usually inaccurate, to prolong the process and delay any possible action that I could take.

Will the Sewage Commission defend their decisions, based on the recommendations from the staff at the CVRD engineering department and the consultant? who am I blowing the whistle on?
The CVRD staff is not interested in further investigation on anything that contradicts what Kris La Rose decides; I tried at the open house talking to Kris La Rose, with no results either. In his own words, he asked me to bring the issues to him and he said he will decide how to proceed without having to ask anybody.

He believes that he is the decision maker and made that noticeably clear to me the day I spoke to him at the open house; he had the nerve to tell me that will be a waste of my time to bypass him; which may be correct by the turn of events, but I am not giving up easily; I have a Ruth Master's degree in Shit Disturbing.

There is something very strange going on between the consultants and the engineering department; and I am sure it will come out sooner or later.

The consultant, WSP, claims on their website that they built the Sewage treatment plant at Town of Lady Smith.

https://www.wsp.com/en-GL/projects/town-of-ladysmith-wastewater-treatment-plant-upgrade

which after investigation with the staff at the Town of Lady Smith, it was built by TRITECH GROUP LTD. (BC), 5413 – 271 Street, Langley, BC V4W 3Y7, (604) 607-8878.

According to them, the project was presented by Opus, and cost 18 million dollars to service 17,200 future population, currently 9,000 people, and after speaking with the manager of public services, was more expensive because of the small footprint of the plant because they have extremely limited space. Opus is not mentioned on the website page but is the author of the report in the attachment, and this is the only water treatment plant WSP has, to show the extensive experience in water treatment plants, according to Marc Rutten.

Opus subcontracted the project to Tritech Group at the time; at the time there is no connection between WSP and the Sewage plant at the Town of Lady Smith.

Does WSP really know enough about wastewater treatment plants to reject the option for the Comox Valley? Absolutely, not.

One thing is noticeably clear on their website, they sell pipelines, not wastewater treatment plants: what an extraordinary coincidence.

The Sewage Commission under the recommendation of Kris La Rose, rejected the option to build a new plant because, according to him, it will cost three times as much. I asked to see where that figure came from, and Marc Rutten refused to provide that information. I contacted the consultant directly, and Mark Rutten reprimanded me over the phone and sent a follow up letter telling me that I should not contact the CVRD's consultants directly; which I also find strange; do they have something to hide? The person that signed the report Negin Tousi, EIT graduated in 2015 with a nonrelated degree to pipelines or Sewage treatment plants, and when I spoke to her, it was clear that she lacks the expertise be in charge of a multimillion-dollar project, 73 million of our money in the hands of somebody with 3 years of experience in an unrelated field?

Since when the staff at the CVRD has the right to tell me who I can talk to? Do you think the CVRD has heard of the constitutional right to free speech? If anything, that is bulling, intimidation, harassment and most important, intellectual discrimination of a local citizen that opposes their unsupported recommendation to the Sewage commission.

I am qualified to question the CVRD, with a degree in Chemical Engineering, Computer Science, Data Science, Database Management, Irrigation, energy conservation, energy efficiency and renewable energy, among other things.
The option for a new plant was rejected by the Sewage commission based on the following table:

Description	Capital Cost	Investment Year	Renewal Frequency	Renewal %	Total Power (kW)	Labour hrs/day
New Courtenay - High Pressure Increase	$29,400,000	2020	25	40%	900	3
Downgrade Jane	$2,362,500	2020	25	40%	25	0
New Jane - Moderate Pressure Increase	$3,850,000	2020	25	40%	425	3
Overland Jane to connect to FM (Long Distance to North)	$4,804,800	2020	60	100%	0	0
Overland Forcemain North from Courtenay to CVWPCC	$27,489,000	2020	60	100%	0	0
New Courtenay WWTP	$105,000,000	2020	100	100%	2000	24
Old Jane to New Jane	$51,744	2020	60	100%	0	0
KFN Pump Station and FM to Courtenay	$616,000	2020	60	100%	0	0
Total Capital Cost	$173,574,044					

The cost of the new treatment plan, they say, is 105 million, plus 29 million for high pressure increase, although, shit runs downhill and is already doing it; and 27 million for overland force main to CVWPCC, assuming that we are dumb enough to pump the water to the old plant after it is treated, instead of using it for irrigation on the farmland that is just across from the current Courtenay Pumping Station, using the Nitrogen and the phosphorous that it contains as fertilizer. Why do we take the Nitrogen and Phosphorous out of the sewer water and buy the same thing later as chemical fertilizer? Seems pretty stupid to me.

Look at the items on the list of capital costs and tell me that they make any sense to you. High pressure increases, Downgrade Jane, overland force main north? Merville is to the north, not the CVWPCC, does it sound professional to you? 51,744, Old Jane to New Jane? What is Old Jane to New Jane? Nothing costs 51,744 CAD in a project like this, all other numbers are rounded, but not this one, $173,574.044? why not just 175 million CAD? Who prepared this table? I asked, no answer. A Sewage plant that would last 100 years? WSP honestly thinks we are just a bunch of Yahoos. I had a good laugh when I saw the 2,000-kW power demand for the plant; if it is running 24/7 that means that the plant will use more than 10 million kWh of electricity per year; I hope you are laughing too.

This table is the only evidence available to justify the rejection of the New plant option, which is rather strange that all the figures in this table seem to have been rounded up. The items on the list have no explanation anywhere in the report from WSP. What is New Courtenay-High Pressure Increase? Overland Forcemain to CVWPCC? Another pipeline? Why pipe back the already treated water to the current plant? That is absurd to say that you can do the conveyance pipe for 29 million once the water is treated and for 73 million if it is not treated. Marc Rutten said that because there is no discharge point up the valley, the treated water would have to be sent to the discharge point at the Comox plant, absurd? Yes, I suggested the Tsolum river, and he said that that will not be allowed. How come Cumberland has been discharging untreated Sewage into the Trent River for more than 19 years? I also happen to know that Dawson Creek discharges the treated water from their Sewage plant into Dawson Creek.
The CVRD Engineering staff needs to be questioned about the following situation:

	Cumberland	Victoria	CVRD system	CVRD Plant	Proposed	Courtenay only	
Total Cost	$ 11,600,000	$ 775,000,000	$ 173,000,000	$ 105,000,000	$ 25,000,000	$ 15,656,628	CAD
Design m3 per Day	1,600	108,000	24,000	24,000	14,736	9,229	m3/day
Sewer Water Production	250	200	399	399	245	245	L/person
Cost of Plant	$ 7,250	$ 7,176	$ 7,208	$ 4,375	$ 1,696	$ 1,696	$/m3
Current Population	4,000	320,000	45,282	45,282	45,282	27,095	people
Projected population 2050	8,000		60,141	60,141	60,141	37,664	people
Estrapolated Values			Average	Difference	Estimated	Quoted	
Extrapolation to CVRD Plant	$ 174,000,000	$ 172,222,222	$ 173,111,111	$ 463,889	$ 25,000,000	$ 6,599,904	CAD

Oh, my God, what a coincidence, the average of the two numbers is $173,111,111 for a 24,000 m3/day Sewage treatment plant. Also amazing is the cost of conversion from Old Jane to New Jane is $51,744 exactly; whatever that conversion is, was never explained in the report.
To support the cost claim, Marc Rutten referred me to fact that the city of Victoria is spending 775 million dollars to build a system that Victoria did not have before; as you probably know, they were dumping the raw sewage water into the ocean. First, there is no reason to compare the system that is needed for Courtenay with Victoria; look at the attachments so you can see the difference. According to the attached brochure, the plant is to serve 320,000 people, with a treatment capacity of 108,000 m3 per day, with a discharge of 200 liters per person per day of sewage.

The biggest question mark is the 173,574,044, it came from nowhere, or perhaps was just extrapolated from other projects? If you take 775 million dollars and divide it by 108,000 = it is $7,175.90 CAD per m3 plant capacity; then multiply that number by 24,000 m3 per day that the new wastewater treatment plant is supposed to treat in the future; voila, what a coincidence: $172,222,222 million dollars for a new plant for Courtenay; is not totally amazing how close the two number are? $173,574,044; a difference of 1.35 million dollars. Especially looking at the breakdown of all the costs.

Another example of this type of estimation is the Village of Cumberland, for which the projected Sewage treatment system is going to cost 11,600,000 for a 1,600 m3 per day Wastewater treatment system. If you divide 1.6 million dollars by 1,600 = $7,250 per m3 of plant capacity, then you multiply that number by 24,000 m3 per day that the new wastewater treatment plant is supposed to treat in the future; voila, what a coincidence: $174,000,000 million dollars for a new plant for the city of Courtenay, what a remarkable coincidence, the difference is minimal.

What is the common denominator to this numeric approach? The project coordinator in both cases is Paul Nash. Shall we question him directly? Perhaps is a good idea to ask the Village of Cumberland how their budget was determined and what kind of documentation was provided to support that figure.

I am sure that the moment these numbers see the public light, the citizens of Courtenay are not going to be very happy with the way the engineering department at the CVRD get their reference numbers to select a best alternative. I guarantee, the reaction is not going to be pleasant.

One thing to bring up is that WSP says that a 24,000 m3 per day wastewater treatment plant to serve 27,000 people + growth – reduction in water use for Courtenay will cost $105 million CAD; and the one in Lady Smith, for 17,200 people cost 18 million CAD according to the attached report and the comments from the staff in Lady Smith. The difference is extremely disproportionate, it is hard to believe the CVRD is trying to pull this one off. I wonder what Bob Wells and the rest of the Courtenay Council will say when they hear all this. Interesting enough, Dough Hillian is now the newly elected Chair of the Sewage Commission, is it fair to make him responsible for this decision?

The maximum future demand in 2060, according to the consultant it will be 24,000 m3 per day, but the projections using the trend of population growth, for the year 2060 should be only 20,000. Currently the permit is for 18,500 m3 per day and the MOE, the same as for the Village of Cumberland will not increase; in fact, we should be reducing our use of water not increasing it, wastewater should go down too.

One big number to consider is that the freshwater plant has a current average daily demand of 21,682 m3 per day of fresh water, to supply 49,000 residents of the CV, with those numbers, 44,000 people will turn 19,469 m3 of fresh water into 14,000 m3 of Sewage. I have requested quotations from three different sources, and a 25,000 m3 wastewater treatment plant would cost less than 25,000,000 CAD, not 105,000,000 CAD that Kris La Rose estimates. The new filtration plant is now close to cost $126,000,000 CAD to produce 140,000 m3 per day of fresh water when we only need maybe 25,000 m3 per day? Where are we going to put all the wastewater that will be produced?

A few years ago. he wanted to spend 56,000,000 in the south Sewage plant project; luckily, the people stopped him.

According to the person that runs the plant in Comox, the daily average input to the treatment plant is 14.000 m3 per day, including the town of Comox and the new areas, with the occasional 20,000 m3 per day when it is very wet weather, due to infiltration of storm water. The maximum flow is 300 liters per second, with a minimum flow of 20 liters per second; the maximum he has ever seen in all the year he has been working there is 600 liter per second; a rare occurrence.

According to the CVRD, the plant serves 44,000 people with an average daily flow of 17,000 m3 per day. Now, here comes the best part; according to Paul Nash, for the Village of Cumberland, each person should produce, 250 liters of Sewage per person per day. The population of Courtenay, which the Sewage is coming from, is 27,000 people; that is 6,750 m3 per day of wastewater per day, is not that Paul Nash is contradicting himself? Do People in Courtenay and Comox poop more than the Cumberland villagers?

Four conflicting figures from the information obtained from the man that runs the plant; that is 318 liters of Sewage per person per day; from the CVRD it is 386 litters of Sewage per person per day; from Paul Nash and the Village of Cumberland it is 250 liter of Sewage per person per day, and for the city of Victoria; 200 liters per person per day. The average of those 4 figures: 288.5 liters per person per day.

So, that is what the conveyance pipe is going to be used for, the average daily flow for the pipe is 8,300 m3/day of wastewater, that is less that 1/3 of what the pipe is being asked to convey.

The conveyance pipeline.

Price tag, 73 million CAD in Capital costs for a 34” pipe, plus O&M of more than 1,000,000 per year.

	CPS						JPS						Total					
	ADWF		PDWF		PWWF		ADWF		PDWF		PWWF		ADWF		PDWF		PWWF	
	L/s	GPM	L/s	GPM	L/s	GPM	L/s	GPM	L/s	GPM	L/s	GPM	L/s	GPM	L/s	GPM	L/s	GPM
2016	59	935	138	2,188	350	5,548	41	650	98	1,554	209	3,313	100	1,585	236	3,741	559	8,861
2020	70	1,110	161	2,552	469	7,435	42	666	101	1,601	212	3,361	112	1,775	262	4,153	680	10,779
2030	79	1,252	181	2,869	488	7,736	45	713	108	1,712	218	3,456	124	1,966	289	4,581	707	11,207
2040	91	1,443	203	3,218	511	8,100	49	777	115	1,823	226	3,583	139	2,203	318	5,041	737	11,683
2050	103	1,633	228	3,614	534	8,465	53	840	124	1,966	234	3,709	156	2,473	351	5,564	769	12,190
2060	116	1,839	253	4,011	559	8,861	57	904	133	2,108	244	3,868	173	2,742	386	6,119	803	12,729
2105	193	3,059	392	6,214	700	11,096	88	1,395	193	3,059	303	4,803	281	4,454	585	9,273	1,003	15,900

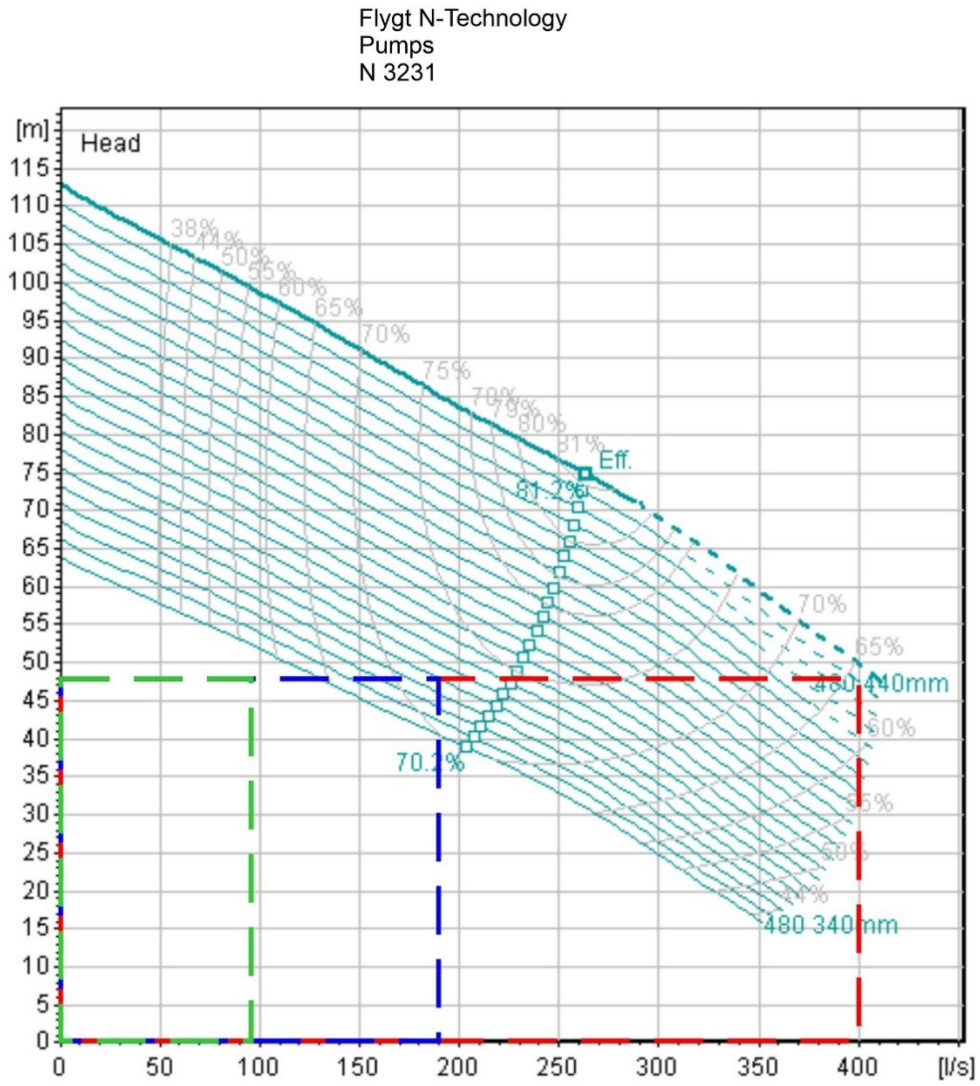
According to the following table, a 34” pipe has a design capacity of 26,900 GPM = 1,696 liters per second, high demand of 2,037 liters per second, and a maximum of 2,549 liters per second. Why are the consultants using a 34’ pipe? No answer from Kris la Rose, Mike Rutten or WSP
The CPS will never need a pipeline larger than 16”.

Pipe Sizing Criteria Schedule 40 Steel **S-40 Steel**

Design: 3'/100' PD , 10 fps max vel High: 5'/100' PD , 12 fps max vel Maxim: 7'/100' PD , 15 fps max vel

Nominl	Outside	Wall	Inside		Design			High			Maxim	
Pipe	Diamete	Thickne	Diamete	P.D. per	Velocity	Flow	P.D. per	Velocity	Flow	P.D. per	Velocity	Flow
Size	(in)	(in)	(in)	100 ft	(ft/sec)	(gpm)	100 ft	(ft/sec)	(gpm)	100 ft	(ft/sec)	(gpm)
0.38	0.675	0.091	0.493	3.0	0.9	**0.5**	5.0	1.7	**1**	7.0	2.5	**1.5**
0.50	0.840	0.109	0.622	3.0	1.6	**1.5**	5.0	2.1	**2**	7.0	2.6	**2.5**
0.75	1.050	0.113	0.824	3.0	2.1	**3.5**	5.0	2.7	**4.5**	7.0	3.3	**5.5**
1.00	1.315	0.133	1.049	3.0	2.4	**6.5**	5.0	3.2	**8.5**	7.0	3.7	**10**
1.25	1.660	0.140	1.380	3.0	2.6	**12**	5.0	3.7	**17**	7.0	4.5	**21**
1.50	1.900	0.145	1.610	3.0	3.2	**20**	5.0	4.3	**27**	7.0	5.1	**32**
2.00	2.375	0.154	2.067	3.0	3.8	**40**	5.0	4.8	**50**	7.0	5.7	**60**
2.50	2.875	0.203	2.469	3.0	4.3	**65**	5.0	5.7	**85**	7.0	6.5	**97**
3.00	3.500	0.216	3.068	3.0	4.8	**110**	5.0	6.3	**145**	7.0	7.6	**175**
3.50	4.000	0.226	3.548	3.0	5.3	**160**	5.0	7.0	**200**	7.0	8.5	**250**
4.00	4.500	0.237	4.026	3.0	5.8	**230**	5.0	7.6	**300**	7.0	8.8	**350**
5.00	5.563	0.258	5.047	3.0	6.4	**400**	5.0	8.3	**520**	7.0	10.3	**640**
6.00	6.625	0.280	6.065	3.0	7.7	**690**	5.0	10.0	**900**	7.0	12.2	**1,100**
8.00	8.625	0.322	7.891	3.0	9.0	**1,400**	5.0	12.0	**1,900**	7.0	14.1	**2,200**
10.00	10.75	0.365	10.02	2.7	10.0	**2,500**	3.8	12.0	**3,000**	5.8	15.0	**3,700**
12.00	12.75	0.406	11.94	2.1	10.0	**3,500**	3.0	12.0	**4,200**	4.6	15.0	**5,200**
14.00	14.00	0.437	13.13	1.9	10.0	**4,200**	2.7	12.0	**5,100**	4.1	15.0	**6,300**
16.00	16.00	0.500	15.00	1.7	10.0	**5,500**	2.3	12.0	**6,600**	3.6	15.0	**8,300**
18.00	18.00	0.562	16.88	1.5	10.0	**7,000**	2.0	12.0	**8,400**	3.0	15.0	**10500**
20.00	20.00	0.593	18.81	1.3	10.0	**8,900**	1.8	12.0	**10400**	2.6	15.0	**13000**
22.00	22.00	1.250	20.75	1.1	10.0	**10500**	1.6	12.0	**12600**	2.4	15.0	**15700**
24.00	24.00	1.360	22.64	1.0	10.0	**12500**	1.4	12.0	**15000**	2.2	15.0	**18700**
26.00	26.00	0.750	25.25	0.9	10.0	**15500**	1.3	12.0	**18600**	2.1	15.0	**23300**
28.00	28.00	0.750	27.25	0.8	10.0	**18100**	1.2	12.0	**21700**	2.0	15.0	**27100**
30.00	30.00	0.750	29.25	0.7	10.0	**20800**	1.1	12.0	**25000**	1.9	15.0	**31300**
32.00	32.00	0.750	31.25	0.6	10.0	**23800**	1.0	12.0	**28500**	1.8	15.0	**35700**
34.00	34.00	0.750	33.25	0.5	10.0	**26900**	0.9	12.0	**32300**	1.7	15.0	**40400**
36.00	36.00	0.750	35.25	0.4	10.0	**30300**	0.8	12.0	**36300**	1.6	15.0	**45400**

Regarding the CPS, the pump identified by the consultant, the Flygt N-3231 pump 335HP:



Why is it that the consultant suggested 2+1 of these pumps if one pump can almost handle the whole thing? Why not have 1+1? One of them standing by? Or maybe use the existing CPS pumps as backup and buy only one new pump?

The discharge diameter of this pump is 8", why do we have to use 34" pipeline? It is very unlikely that more than one pump will be used at any given time. The maximum flow per day currently is 178 L/s.

The information I offered is to make you aware of the problem, so further investigation should take place before any final decisions are made.

The Sewage commission members do not seem to be willing to make the decision they are being asked to make. After talking at the meeting, it is evident that they are forced to accept the decisions and recommendations they have received from CVRD staff and, so called technical experts. It was sad to sense the fear that members of the Sewage Commission have to contradict staff or to demand clear answer to their questions.

I am not giving up, I just wanted to give you a fair shot at the irregularities of the process of spending 73 million dollars of our money, us, the citizens of Courtenay, it used to be 54 million; what is it going to be in 2023? Easy to spend other's people money, isn't it?

What the CVRD is really asking is permission to waste our money. 35% contingency? Aren't we supposed to be asking the experts? $25,000,000 to cover their ass? Even my grandmother could do this withing budget. I am intrigued of what the people in Courtenay are going to think and do when they hear the details of what the CVRD is doing. This 73 million figure was never mentioned to us the public ever before.

Environmental Impact of the Conveyance Pipeline

The embedded carbon and embedded energy of the Conveyance Pipeline are huge, the horrifying carbon footprint of building this pipeline was not mentioned, let alone considered in the environmental impact reported by the consultant.

Did anybody in this commission heard of a report from the consultant about this? How many metric tons of CO2 will be produced? How many kWh of electricity will be invested in a trenchless pipeline? No answers were provided by the CVRD staff. The consultant is obviously not interested in pointing out how bad for the environment their proposal is.

"Shit runs downhill."

- Does this sound familiar?
- Pumping Sewage 48.1 meters uphill is an awfully bad step in the wrong direction.
- Around 1,000,000 kWh of electricity will be used per year in pumping, what is the carbon footprint of this amount? That goes on the Carbon budget for the City of Courtenay, and could be avoided.

"if it is not broken, don't fix it."

- The assessment of the current conveyance pipe is that it is in good condition; why is it going to fail? There is no evidence that it will.

Sustainability

- "meeting the needs of the present without compromising the ability of future generations to meet their own needs."
- The needs of the Comox Valley residents in 20 or 30 years will certainly be different than ours today; what makes you think you can decide what will be good for them using 60-year-old technology? Magnetic flocculation or Oxidation Ditch are good example of available processes to replace the ones used at the Comox Plant.
- Resource recovery to reuse treated water will be a mandate in the extremely near future due to water scarcity.
- We are an agriculture community; why take nitrogen and phosphorous out of the wastewater when it could be used as is? No takers? Ask again.
- The most expensive water is the water you do not have; ask farmers in the Comox Valley.

A new wastewater plant?

- Option that was rejected under the false premise that it will be too expensive to build and to maintain.

The cost of such plant will never be 105 million dollars. Where is that premise coming from?

A consultant, for which the CVRD has not provided evidence to prove that the information in the consultant's report is accurate.

The Consultant:

WSP is an infrastructure company that builds pipelines and has only one wastewater treatment plant in their portfolio.

The only instance of a wastewater treatment plant is the claim that the Town of Ladysmith's was built by them, which after investigation with staff at the Town of Ladysmith, such claim is not documented, it is assumed to be a dubious claim. An attempt was made to verify this claim with the consultant, but they refused to communicate with me to provide evidence; in other words, their claim is false.

In WSP's website, they claim that they built a state-of-the-art Sewage treatment plant that will serve a population of 17,200 residents, although, the population of Ladysmith is only 9,000. The Town of Ladysmith reported that the cost for such facility was 18 million CAD, more expensive than expected because of the restrictions on the land available for the project.

The budget for the treatment plant of $105,000,000 was never documented, Kris La Rose indicated that the plant would cost three times as much as the Conveyance Pipeline but failed to produce proof to support that figure, and there was no information provided of how much Sewage this plant would be able to treat. Marc Rutten was asked the same question and his only reply was that a plant on the north side of the city would be an awfully expensive option, citing the cost of the wastewater system for the city of Victoria that will cost 800 million dollars, I believe it is unreasonable to make such comparison.

The assumption is that it would have to cover the full wastewater treatment demand of the entire service area, which has been determined to be 24,000 m3/day in the year 2060.

Incidentally, the expected cost for a 24,000 m3/day wastewater tertiary treatment plant is expected to be less than $25 million dollars, all included, and the O&M cost to be less than $0.50 CAD/m3. Everything included. And most important, it will be carbon neutral because all the energy needed for the process will be produced inhouse.

The Sewage from Comox and Cumberland could be incorporated later into this project at minimal cost in a gravity fashion, as instructed by the laws of nature.

Circularity is required to maximize the use of resources.

- Why not use reclaimed water in Fertigation?
- Nitrogen and phosphorus are needed in Agriculture.
- Water for irrigation is scarce and expensive and will be more soon.
- 24,000 m3/day are enough water to irrigate between 500 and 750 acres of food producing land in the Comox Valley.

The CPS

To establish the real demand of conveyance, there are several parameters that need to be determined since the ones presented in the WSP report are not completely accurate.

Kris La Rose made and maintains the statement that the design flow for the Conveyance Pipeline is 500 liters/second several times during the open house at the CVRD office. To put this in perspective, it is 7.55% of the total flow of the Puntledge River on Feb. 8, 2021; it would take a two-hour shower to use that much water.

- Station ID 08HB084
- Station Name PUNTLEDGE RIVER BELOW DIVERSION
- LATITUDE 49.67
- LONGITUDE -125.09

- Current Reading: H= 120.462 (m), Q= 6.62 (m3/s)
- Return Period <2y.
- WSC Real-Time Data More info
- Updated at 08:04AM Mon 2021-02-08

Water use facts:

What is the use per capita of drinking water in Canada?

- 250 liters per person per day

What is the usage rate in the Comox Valley?

- 454 liters per day average throughout the year, according to the CVRD information

This is categorically unsustainable and expected to down to at least 30% lower by the year 2025.
Where is the Sewage water for the Conveyance Pipeline coming from?

- Only from Courtenay residents, that according to Census Canada, 27,091 projected for 2021
- OCP calls for a 30% reduction.
- Old Toilet replacement should be mandatory.
- Infiltration from roofs must be eliminated.

Average wastewater per capita production from different sources of information:

- 180 liters/day per capita as a rule of thumb for developed countries
- 180-200 liters/day per capita in Victoria, BC
- 250 liters/day per capita according to Paul Nash for the Village of Cumberland
- 14,000 m3/day according to the Comox plant operator, 306 liters/day per capita

Where does the Sewage water originally comes from?

- The CVRD water purification system that takes the water from the Comox Lake.
- The demand is between 16,000 and 40,000 m3 per day, depending on the time of the year; with an average is about 20,000 m3 per day for the entire service area of 44,000 residents.
- If all the fresh water provided to households in the system could be turned into Sewage water, which is impossible, 20,000m3 per day divided by 44,000 = 454 liters of Sewage per day, multiplied by the population of Courtenay of 27,000, it equals to 12,200 m3 of Sewage per day.
- 454 liters per day per person of fresh water contradicts the resolution to reduce the amount of fresh water used.

I just received an email from the CVRD staff announcing that the project was approved; only a week after the chair of the committee was elected. Do they expect that we will not question that decision? What happened to the previous Chair of the Sewage Commission?

I am hoping that all this information warrants further investigation; it will be made public in all possible media channels and will also reach the provincial and federal governments, MLA and MP, social media, newspapers, and the Ombudsman, who previously has reported the misconduct of the CVRD in a similar matter: An Investigation into the Instability and Recession of Willemar Bluffs (Regional District of Comox-Strathcona).

I requested to present my findings to the CVRD Board as a delegation, and I was refused that opportunity, instead, I was directed to speak as a delegation to the Sewage commission. I objected because it was obvious that no matter what I said, they were going to proceed with their decision of building a pipeline.

That day, a new chair of the Sewage commission was elected.

My prediction was correct, and after only 15 days, the decision was announced. The Sewage commission and, the new chair did not have time to familiarize himself to what was being decided and was denied the opportunity to read this report.

I was given only 10 minutes to do a presentation of an extraordinarily complex matter, I requested to have 30 minutes and was refused the extension, with no other items in the agenda except the election of the new Chair. I had to write this report and did not have the opportunity to present it before the decision was made.

The tone in the announcement of February 24 of 2021 is that it is a done deal, and nothing else can be done to change the direction of this project.

I just watched the video of the February 23, 2021 Sewage Commission meeting, in which the recommendation of the CVRD staff were passed, nothing in the meeting indicated that there is a recorded vote of the members of the Sewage Commission to approve or disapprove the execution of the project.

I also noticed that the residents of Comox have not given a clear picture of having their life disrupted for months to accommodate the needs of sewage treatment by the City of Courtenay and will have to also pay for it at a rate of $150 CAD per year per parcel without any benefit to the current sewage treatment needs.

The subject in the message I received from Michael Briggs on behalf of "The Project Team" reads:

"Sewage Commission chooses preferred conveyance route for Comox Valley Sewer Service."

"The Comox Valley Sewage Commission approved a plan on Feb.23 to upgrade the pipes and pump stations that move wastewater from Courtenay, Comox and the K'ómoks First Nation to the Sewage Treatment Plant.

This decision was supported by recommendations from staff, technical experts and the public."

Does it sound that we, the citizens have any say in this?

In fact, no decision has been made since they do not even have a firm quotation from any entity on how much it will cost. Why do they communicate with us in a form that we may think that nothing can be done to change this? AAP will prove this point; the majority of residents will not support this approach.

We cannot give the CVRD an open purse to spend 73 million dollars based on the fear that the existing pipe is going to fail, for sure.

Listening to Kris La Rose during the meeting, was like listening to an insurance agent, trying to sell me insurance against the possibility of a meteorite impact that is going to wipe out life on earth. There is no base for his arguments that the existing pipe is going to fail, except the opinion of somebody that cannot show one single example of a similar pipeline that has failed.

Why are we buying Kris La Rose fears? Why don't we ask him to give us written arguments of the empty opinions he presented at the meeting? Has anybody in the Sewer Commission seen the report from the expert he continuously referred to during the meeting?

He keeps talking about the need to replace the CPS because of the ground failure, and he proposes building the new one on the vicinity of where it is now.

The original reason for this project is now shadowed by the lack of evidence that the existing pipe is going to fail and is now based on fear of something that has an exceptionally low probability to materialize. The same

with the probability for the great earthquake, that when it happens, we will be running for our lives and the sewer pipe will be the last thing to worry about, we will be, literally shitless.

I want to bring up the fact that Kris La Rose is and was behind the project to filter the water from the Comox Lake due to high turbidity, and now that threat has disappeared and we are still liable for the 126 million dollars that the CVRD is spending to produce 75,000 m3 per day of drinking water that we don't need since the average use per person is 454 liter per day per person, the demand in 2050 of 60,000 residents will be 27,000 m3 per day, of which a good portion will be turned into waste water that is going to be treated at the Comox plant, that has a maximum capacity to treat 20,000 m3 per day, with a discharge permit of 18,500 m3 per day. I have proof that turbidity is not an issue and we are paying dearly for that mistake. I have several meetings with Kris La Rose on the issue of turbidity and drinking water demand; he finally run out of turbidity reasons and claimed that the filtration system is a matter of water security, and that I should trust that he was doing the right thing; I had a good laugh at him and left the meeting.

During the open house last fall, for which there were very few residents of Courtenay besides me, he made two remarkable comments, the design flow for the pipe is 500 liters/second and that the cost of a new wastewater treatment plant would be three times the cost of the pipeline that the CVRD is proposing. During that meeting I had a very long and intense conversation with him, and he failed to produce any evidence of any of this two totally off the wall statements.

I also had a conversation with Marc Rutten and James Warren outside the building and he insisted that all the information was available on the CVRD site; and that I was welcome to revise it and discuss and ask questions later. Soon after, Marc Rutten told me that if I wanted the information I was requesting, I should go through the Freedom of Information Act routine. He also called me on the phone to reprimand me for calling WSP directly to request the information that I was missing. Maybe he forgets that we the citizens pay the CVRD to serve us and pay for the consultants that must cover their lack of knowledge on the issues at hand, like weather to build a new plant or build a controversial pipeline.

We, the citizens of Courtenay, have the right to disagree on the decisions and recommendations given to the elected officials that are to work for the people that elected them.

One thing is certain; this Conveyance Pipeline is not a done deal, and the citizens of Courtenay will have the opportunity to know the details. I also promise that there will be responsibility and accountability demanded from the people responsible for the decision to go ahead with this project.
I am prepared to propose a plan B to the Sewage Commission, I request such opportunity.

I deeply apologize for the imperfections of my writing, I am an engineer and it is almost 5 am, I am tired, I sincerely hope that you see a legitimate intention to prevent a mistake that will be worse that the one made 39 years ago on the Willemar pipeline; the love for the Comox Valley is driving me to address you. A copy of this letter in PDF is attached. Rest assured that all my statements are well documented and carefully thought about.

I wish you enough.

Eduardo Uranga