



Friday, 19th January, 2018

To: Hon. George Heyman, Minister of Environment and Climate Change Strategy

Cc: Mark Haddock, Lead, Professional Reliance Review

Submitted via email to:

ENV.minister@gov.bc.ca; George.Heyman.MLA@leg.bc.ca; CitizenEngagement@gov.bc.ca

RE: Provincial review of Professional Reliance

Dear George and Mark,

My Sea to Sky is a people-powered environmental organization that was founded in 2014 with the mission to inspire, educate, and organize our communities to protect Howe Sound for future generations. We actively advocate against unsustainable industrial projects that threaten the recovery of At'l'Kitsem / Howe Sound by organizing educational events; coordinating research; building partnerships and respectful relationships; lifting up First Nations voices and culture; and facilitating public engagement with our municipal, provincial, and federal governments.

We value intact ecosystems that sustain and support our communities, our livelihoods, and our diverse and sustainable local economies. We envision a future where At'l'Kitsem / Howe Sound is protected for present and future generations, and our communities thrive as we transition to a renewable-energy economy.

We currently represent more than 18,000 people that have supported our campaigns to stop Woodfibre LNG and its associated FortisBC pipeline and compressor station, stop the proposed Burnco gravel mine, and protect Howe Sound.

We would like to congratulate this government on initiating a review of the professional reliance approach, and appreciate the opportunity to provide input as stakeholders. Our focus will be to document how the professional reliance approach has failed to protect the communities around Howe Sound through the broken environmental assessment processes we have experienced for Woodfibre LNG, and FortisBC's pipeline and compressor station (both of which have been approved), and the proposed Burnco gravel mine.

The BC EAO is currently compiling the final report for the Burnco gravel mine to be delivered to the Ministers for a decision on 2nd February 2018, and we have been trying unsuccessfully to get a meeting with Minister Heyman before that date. Note that our supporters have sent more than 3,000 letters directly to Minister Mungall and Minister Heyman highlighting their concerns about the professional reliance approach as part of the current BC EAO and CEAA public engagement processes for the Burnco gravel mine (See Appendix 1).

We will explore each of the key concerns listed below and provide recommendations in the following pages:

- 1) Lack of baseline data and peer-reviewed science;
- 2) Ignoring/excluding data that is not provided by the proponent's hired Qualified Professionals;
- 3) Science that is bought and paid for by the proponent has an inherent conflict of interest;
- 4) Selective suppression of reports commissioned by the proponents;
- 5) Limitations with current public engagement process and open houses for environmental assessments;



MY SEA TO SKY

- 6) Approval with mitigation should not be a foregone conclusion;
- 7) Protecting and restoring ecosystem health needs to be prioritized;
- 8) Need to evaluate all components of a project, including any upstream impacts and climate change emissions;
- 9) Need to evaluate cumulative impacts;
- 10) Need to improve socio-economic impact analyses and acknowledge the value of ecosystem functions and ecosystem services;
- 11) Government mandate to develop LNG export facilities constitutes a conflict of interest;
- 12) Loss of trust: public engagement is meaningless;
- 13) Ensure that First Nations are engaged and their rights respected as per UNDRIP;
- 14) Provide recourse for the general public to hold proponents accountable.

1) Lack of baseline data and peer-reviewed science

After decades of recovery efforts and millions in taxpayer dollars, Howe Sound is coming back to life. The herring have returned thanks to the extensive efforts of local community groups (see Figure 1).



Figure 1: Herring eggs on kelp in Howe Sound in February 2013. The proposed Woodfibre LNG site is clearly visible in the background. Photo by local citizen scientist, John Buchanan.

When the herring return, the dolphins and whales follow.

On a miserable day in March 2014, a pod of hundreds of Pacific white-sided dolphins swam into the Blind Channel in Squamish to escape the orcas that were hunting them. It was pouring rain, miserably cold, and all of Squamish came out to watch the show.

This is National Geographic on our doorstep. All of this is at risk (see figures 2 and 3).

Figure 2: Transient orca stuns a Pacific white-sided dolphin in Howe Sound. Photo: Caleb Jamieson





*Figure 3: Transient orca hunting for Pacific white-sided dolphins near Nexen Beach in Squamish.
Photo: Rich Duncan Photography*

In their original project proposal as part of the BC EAO's substituted environmental assessment (EA), Woodfibre LNG proposed to use an outdated seawater cooling system to cool the onshore liquefaction plant. Fisheries and Oceans Canada (DFO) guidelines recommend industrial marine water intake pipes be located at least 2 km from documented herring spawn areas. According to federal guidelines, marine intakes can have "severe impacts on marine resources." The guidelines state herring eggs and larvae are particularly vulnerable.

Woodfibre LNG's initial herring spawn assessment relied on data provided by DFO that was out of date (see Figure 4). DFO admitted that they had not surveyed herring in Howe Sound for years, partially due to lack of capacity caused by funding cuts at the Federal level.

Fortunately, local citizen scientist, John Buchanan, had been monitoring herring spawn around Howe Sound since 2010 (see Figure 5). Each of the red lines on the map indicate herring spawn for each year. Herring are spawning directly at the proposed Woodfibre LNG site and at other locations well within the 2 km guideline.

Despite this lack of baseline data, and despite being made aware of the available citizen science data, Woodfibre LNG excluded this data from their report, and the project was approved by both the Provincial and Federal EA process.

It was left to Squamish Nation, through their separate environmental assessment process, to hold Woodfibre LNG accountable. In their list of 25 conditions, Squamish Nation forced Woodfibre LNG to provide further information on alternative cooling techniques, and to allow Squamish Nation to make the final decision on what cooling system W LNG must use. It is shameful that Squamish Nation's process is more comprehensive than both the Provincial and Federal environmental assessment. This example really highlights the inadequacy of the EA process to review proponent-supplied science.

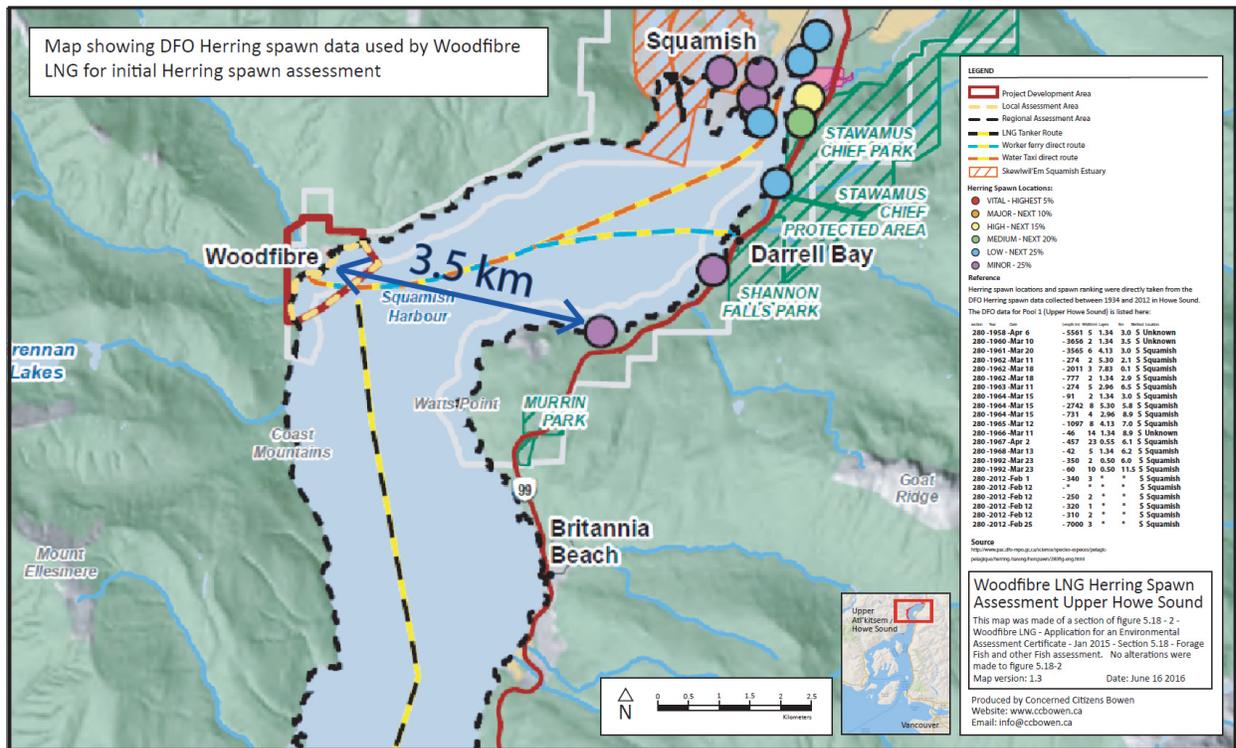


Figure 4: DFO herring spawn data used by Woodfibre LNG for initial herring spawn assessment in 2015.

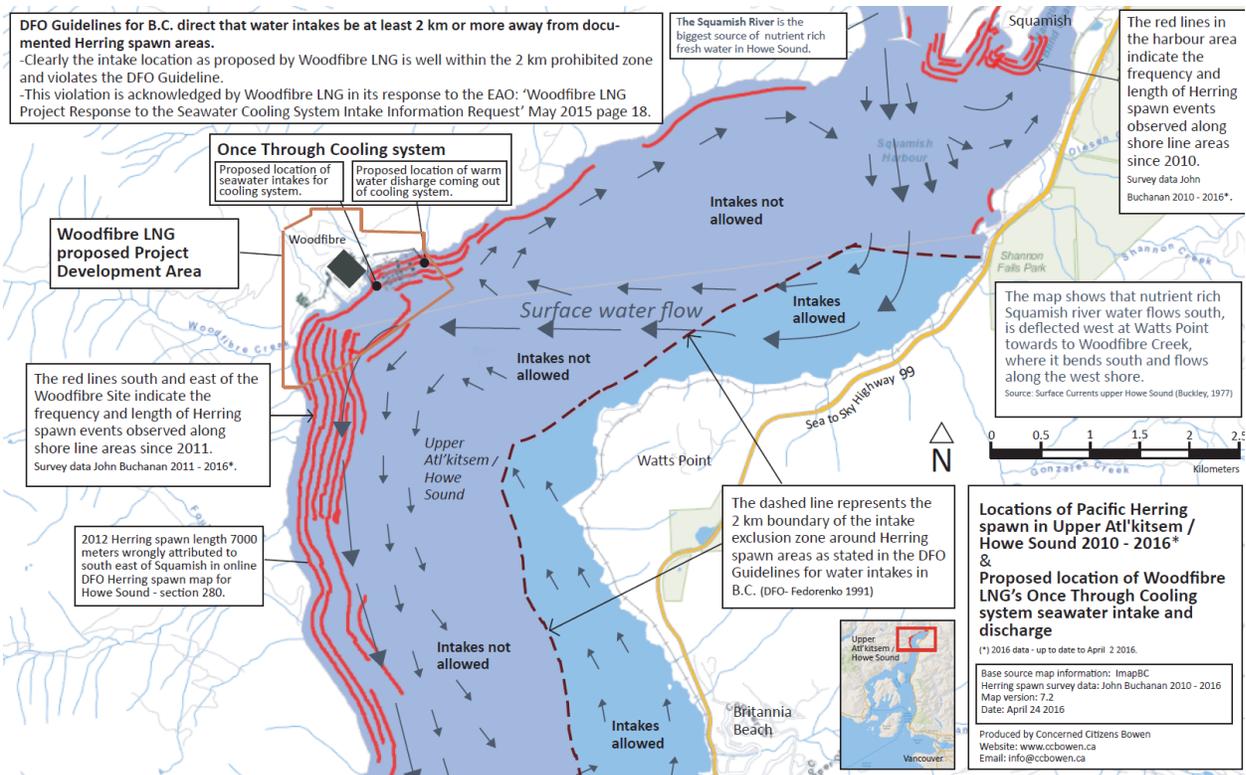


Figure 5: Herring spawn data collected by local citizen scientist, John Buchanan, from 2010 to 2016. Red lines indicate herring spawn. Map created by Anton van Walraven from our partner organization, Concerned Citizens Bowen.

Similarly, DFO has no current baseline data on salmon populations in McNab Creek since 1989. It is a stretch for the BC EAO to conclude that salmon spawning will not be adversely affected if the Burnco gravel mine is approved, given that they are making this conclusion based on limited and biased data.

Burnco's consultants, Golder & Associates, reported the results of its fish surveys of McNab Creek as part of the EA for the Burnco gravel mine. In it, they describe populations of coho, chum, and cutthroat trout as being the limit of fish species observed in multiple transits of the length of the stream. However, citizen scientist John Buchanan has recently catalogued, in print and with video proof, observations of spawning Pink, Coho, Chinook, and Sockeye salmon in McNab Creek and submitted these to the BC EAO. This important discovery was missed by Golder in its initial observations of the species spawning in the creek in 2011-2012. As with the EA for Woodfibre LNG, this independent salmon data has not been incorporated into the BC EAO's report, although the consultants were instructed to conduct additional studies of McNab Creek.

Relying on the general public and concerned citizens to monitor and evaluate the work that is being done by the proponent's hired consultants is symptomatic of the issues with professional reliance approach. The government is failing to protect the public's interest by failing to monitor and protect salmon and salmon habitat. This has resulted in a loss of public trust in the integrity of the work conducted by qualified professionals hired by proponents, and a loss of public trust in the integrity of the environmental assessments that rely upon this approach.

When the Burnco gravel mine was first proposed, the Department of Fisheries and Oceans Canada (DFO) noted that there were significant issues regarding impact on fish and fish habitat. At that time it was noted that: pursuant to the then-policy of no net loss (of fish habitat), it was not deemed possible for the initial proposal to overcome harmful alteration disruption or destruction (HADD) to fish habitat. After the application was rejected by DFO, Burnco filed a judicial review application against DFO in the BC Supreme Court to force DFO to allow it to proceed to an environmental review. DFO agreed to that review with serious concerns as "the project presents a high risk to Salmon and Salmon habitat."

The "Wild Salmon Policy" adopted by the Federal Government states that: *"The goal of the Wild Salmon Policy is to restore and maintain healthy and diverse salmon populations and their habitats for the benefit and enjoyment of the people of Canada in perpetuity... Conservation of wild salmon and their habitat is the highest priority for resource management decision-making... The policy places conservation of salmon and their habitats as the first priority for resource management... It gives tangible effect to this principle by committing to safeguard the genetic diversity of wild salmon, and maintain habitat and ecosystem integrity."*

We do not see how a conclusion by the proponent/BC EAO that "the EAO is satisfied that the Burnco Project would not have significant adverse residual effects on fisheries or the freshwater environment" is in any way compatible with observed salmon populations and the Wild Salmon policy commitment of the Federal Government.

RECOMMENDATIONS

- Restore funding to government agencies at the Provincial and Federal level to collect baseline data.
- Restore funding for independent monitoring and enforcement of existing projects.
- Lobby the Federal government to restore the lost protections in the Fisheries Act as soon as possible.
- Invoke the UN's Precautionary Principle for all environmental assessments.

2) Ignoring/excluding data that is not provided by the proponent's hired Qualified Professionals

As per the examples above there is currently no mechanism to incorporate data that is not provided by the proponent's hired Qualified Professionals. Rigorous peer-review and cross-examination of proponent-supplied science must be a feature of any EA process.

RECOMMENDATIONS

- Incorporate a mechanism to include data from citizen scientists, experts from the general public, and qualified professionals hired by community groups and assess these competing scientific perspectives in a sound, fair, and balanced way.
- Incorporate a mechanism to peer-review and cross-examine science conducted for the EA process.

3) Science that is bought & paid for by the proponent has an inherent conflict of interest

How can qualified professionals be objective in applying legislative rules, especially when they do so for a client with a vested interest in a particular outcome? This undermines the integrity of the process and results in a loss of public confidence and trust in the decision.

Decisions that relate to projects that pose a significant risk to the environment and/or human health must be made by government, and not outsourced to qualified professionals.

RECOMMENDATIONS

- Recognize that science paid for by the proponent has an inherent bias (conflict of interest).
- Require independent, peer-reviewed science paid for by proponent but hired and managed by a separate entity to remove any real or perceived conflict of interest.
- Establish monitoring that is conducted by independent qualified professionals, not professionals that are closely affiliated with the proponent they are meant to monitor.
- Government needs to be responsible for selection and oversight of qualified professionals from a pre-approved list that is maintained according to the quality of the work provided. The cost of hiring the qualified professional would be paid for by the proponent, along with fees to cover the cost of the government agency responsible for hiring the QP. The QP would sign a retainer agreement with the government, not the proponent, and government would have the ability to dismiss poorly performing professionals and/or remove them from the pre-approved list of qualified professionals. Any conflicts of interest need to be disclosed as part of the hiring process, and failure to disclose conflicts of interest would result in the QP being eliminated from future consideration.
- Establish whistle-blower protection to protect qualified professionals and prevent SLAPP suits.
- Implement legislation or policy to ensure that government staff will not work for the proponent or industry sector for a period of one year (or other period of time sufficient to be a deterrent) after ending employment with the BC EAO.

4) Selective suppression of reports commissioned by the proponents

We are aware of at least two reports that were not released to the general public that were commissioned by Woodfibre LNG:

- a) Knight Piesold - Woodfibre LNG Geotechnical Assessment
- b) Keystone Environmental - Uplands Human Health and Ecological Risk Assessment, Former Squamish Pulp Mill, Woodfibre, BC.

Please see the cover pages of these two reports that were leaked to My Sea to Sky attached as Appendices 2 & 3.

When the science is bought and paid for by the proponent as the client, the proponent also dictates what science is released as part of the environmental assessment process and to the general public. If the reports do not show that the project is beneficial for the community and the environment then it is simple to suppress them.

The Knight Piesold – Woodfibre LNG Geotechnical Assessment confirms the geologic instability of the site foreshore, which sits on two known thrust faults and has suffered periodic slumpage into the Sound – most recently in 1955, when the pier and an on-land warehouse disappeared into the depths.

The Keystone Environmental report on site pollution shows a high level of chemical contamination of the site, dating from its long use as a pulp mill, when these were dumped on the site and into the Sound. The “black liquor” chemicals include known dioxan and furan carcinogens, which must be continually captured onsite to prevent their leaching into the Sound. The report recommends minimal disturbance of major areas of the site, including maintaining a concrete cap over several dump areas and not excavating more than 1 meter below surface level without equipping workers with hazmat protections. When the undersized capturing facility broke down last winter and spilled “3,000 litres” of this contaminated chemical soup, Woodfibre LNG failed to inform the District of Squamish, arguing that it was none of its business.

Neither of these reports, commissioned for the proponent, were shared with the public. Yet the Environmental Ministry speedily issued a clearance certificate for the site, authorizing its use as an LNG plant employing up to 100 unsuspecting workers.

RECOMMENDATIONS

- Government needs to be responsible for selection and oversight of qualified professionals from a pre-approved list that is maintained according to the quality of the work provided. The cost of hiring the qualified professional would be paid for by the proponent, along with fees to cover the cost of the government agency responsible for hiring the QP. The QP would sign a retainer agreement with the government, not the proponent, and government would have the ability to dismiss poorly performing professionals and/or remove them from the pre-approved list of qualified professionals. Any conflicts of interest need to be disclosed as part of the hiring process, and failure to disclose conflicts of interest would result in the QP being eliminated from future consideration.
- All documents prepared by the qualified professional must belong to the government, not the proponent. The government can then make these documents available to the public under Freedom of Information laws, unlike the current professional reliance model, where key documents that do not support the proponent’s project are sometimes suppressed and hidden from the public and the government.

5) Limitations with current public engagement process and open houses for environmental assessments

Below we have documented some of the issues we noted with the first open house hosted by the BC EAO on June 18th, 2014, in Squamish for the proposed Woodfibre LNG project.

- a) The proponent, Woodfibre LNG, hosted additional open houses during the same week as the official EAO open house, and provided a separate feedback form, “Woodfibre LNG Project: Community Consultation Discussion Guide and Feedback Form,” (see Addendum 2a) for accepting public comments. Citizens thought that by providing comments to the proponent (either written or via the weblink provided) they were participating in the EA process, however this is not the case. This attempt to deflect citizen participation and involvement from the official EA process on the part of the proponent is unacceptable.
- b) The dates to provide feedback for the Woodfibre LNG process were from June 16th till July 4th, which also confused people as several local residents thought they had missed the official public comment period through the Environmental Assessment process, which originally ended on July 11th, but was extended to July 27th.
- c) The proponent provided two documents during the EA open house, that had identical covers, but different titles, in difficult to read text (dark green text on blue background). Several citizens didn’t realize there were two different documents, and only picked up one document instead of both.
- d) The format of the open house seemed designed to deflect meaningful public engagement for this project. Rather than a question/answer session that would enable a real discussion about this project, the public engaged one-on-one with the Proponent’s staff and hired consultants. This limits how much information can be shared with the public.
- e) The three BC EAO staff at the Open House were vastly outnumbered by the Proponent's staff and hired consultants, and difficult to identify. The Manager had a handwritten identity badge, scrawled with "Scott – BC EAO", leaving most attendees wondering what "BC EAO" stood for.
- f) Information provided was lacking in details, and difficult to understand.
- g) The BC EAO staff were prepared only to answer questions about process - not about the project and its environmental effects. This is indicative of the abysmal quality of the EA process - informed only by the information released by the proponent and utterly devoid of any input reflecting the Government's fiduciary responsibility to inform and protect the public and our environment.
- h) Nobody opened the meeting, announced the key people, introduced the EA process, welcomed the attendees, nor thanked them for coming. The meeting was ended abruptly by turning the lights off.
- i) It was very hard to hear as the room was so crowded and the noise level was estimated at 120 decibels.
- j) There was no way to provide feedback as part of the Environmental Assessment process during the open house in Squamish. Citizens were told that they had to access the EAO’s website, which limits public input to those citizens that have computer access, and are savvy enough to navigate the confusing EAO website. It also limits input from older generations that don’t have these skills.

- k) The Project Assessment Manager for the Woodfibre LNG EA process, Josh Handysides, resigned two days after the EAO's open house in Squamish. All of the feedback, concerns, and information provided by citizens to Mr Handysides was essentially worthless. Mr. Handysides subsequently joined Woodfibre LNG as its Regulatory Manager.
- l) During one Woodfibre Open House, professionals employed by Woodfibre LNG informed attendees that:
 - a. CO₂ emissions do not cause ocean acidification (“that’s Sulphur Dioxide, Eoin”);
 - b. The LNG plant would emit fewer GHGs than did the Port Mellon Pulp & Paper plant (this is untrue: the respective annual figures are 142,000 tonnes for Woodfibre LNG v. 107,000 tonnes for Port Mellon Pulp & Paper);
 - c. Loaded LNG tankers underway at 10 knots can, unassisted, come to an emergency halt inside their own length (peer-reviewed scientific studies put this figure at 2-3km., and then only with tug assistance) and;
 - d. There would be no at-shore wake effects from LNG tankers and tugs extending beyond 150m from the transiting vessel, an assertion that violates laws of Newtonian physics and everyday experience of BC Ferries transiting the Sound that have one-tenth the displacement of LNG tankers.

Promulgating such inaccuracies bring the practice of Professional Reliance into distrust, if not outright disrepute.

At a different open house held by the BC EAO on Bowen Island on 2015-01-30, two of our volunteers, Eoin Finn and Laurie Parkinson (both of whom are trained scientists), were ordered by the BC EAO to leave a Woodfibre LNG open house held at the public school for distributing handouts with suggested questions to ask the proponent.

During FortisBC's third public comment period, in October 2015, there was less than one week to respond following the open house, and the open house itself was very poorly advertised, as FortisBC sent out a notice in a junkmail package that the local newspaper delivers to a limited number of homes. My Sea to Sky complained and FortisBC was forced to hold a second open house that was more widely advertised and better attended.

A more recent open house, hosted by both CEAA and BC EAO for the Burnco gravel mine on 12th September 2016 in Squamish had similar issues which we have noted below:

- a) The proponent, BURNCO, was responsible for collecting signatures of everyone that signed in at the door. This was concerning for many residents that attended the open house, with several people refusing to sign in. This demonstrates the lack of trust that has developed of the entire EA process.
- b) While Tracey Saxby attended the Squamish open house, she took photographs of each of the displays, however several staff from BURNCO and Golder tried to dissuade her from doing so, as they assured her that the displays would be available on the www.burncohowesound.com website. Some told her that the displays should be available immediately, others told her that they would be available as of Thursday 15th September. On Saturday 17th September, Tracey spent more than an hour reviewing every page on the www.burncohowesound.com website, and the promised PDF of the display information is not uploaded to the website. This is concerning, as it not only frustrated her current efforts at responding appropriately to this proposed project in the limited time she had available, but begs the question whether the BURNCO staff and their consultants at Golder were knowingly lying about the presence of the displays on the BURNCO website to frustrate public input, or were merely misinformed, and by who?

- c) The proponent, BURNCO, was offering gifts of honey to any resident that attended the open house, in an open attempt at bribery (see Figure 6). This issue has also been a really big problem for the Woodfibre LNG project, with the proponent donating tens of thousands of dollars to youth sports teams and other community groups in an attempt to buy support for their project and silence opposition since early 2014.
- d) The paragraphs below document Tracey Saxby’s experience with misinformed consultants at the Burnco open house:

“When I asked the consultants questions about the location of the gravel deposit, I received two different answers from four different consultants, all from the same consulting team at Golder Associates:

I first approached Dave Carter (Fisheries) who assured me that the gravel deposit was a glacial deposit. The second consultant I approached was Dan Chorley, who did the groundwater studies, who told me no, it was an alluvial deposit. The third consultant, Chris Coles, who did the surface water analysis told me, no, it’s a glacial deposit, and was adamant that he was correct even after being told that two of his colleagues had different opinions. I finally tracked down the geotech consultant, Jeff Phillipone, who confirmed that yes, it is an alluvial deposit as the creek has flowed through the proposed site of the gravel mine in the past.

This raises several concerns regarding the validity of the studies completed by both the surface water and fisheries consultants if they are based on false assumptions that the gravel deposit is a glacial deposit rather than an alluvial deposit. It also indicates that these teams of consultants are not necessarily talking with each other or working with each other when they are conducting their studies. Finally, it highlights the issues with a poster board session, where if I had not asked the same question of several different consultants, I would have come away with false information that the deposit was a glacial deposit based upon my conversation with the first consultant. This issue would have been quickly resolved if instead we had been participating in a town-hall style open house, as the most obvious expert, Jeff Phillipone, would have responded to my question.”

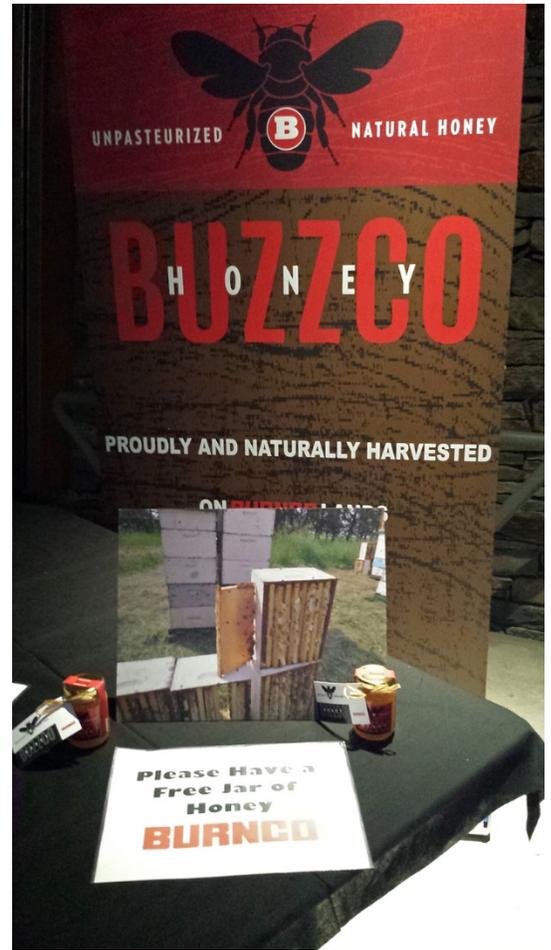


Figure 6: Free honey offered by Burnco at the Squamish open house on 12th September 2016.

RECOMMENDATIONS

- 1) Host any information sessions related to proposed projects that are going through the environmental assessment process at the beginning of or prior to the start of the public comment period, rather than the end, to allow the public to learn about the project, ask questions, and provide adequate time to understand, research issues, and provide meaningful input. This will also allow the general public to follow up with the proponent or the consultants doing the studies during the public comment period.
- 2) The BC EAO or CEAA must be responsible for hosting the open houses, not the proponent. If names are recorded at the door, these must also be collected by BC EAO or CEAA staff, not the proponent.

- 3) Do not permit the proponent to host additional open houses during the public comment period, or to collect public input on behalf of the BC EAO. There is little trust that this input will be incorporated.
- 4) Do not permit the proponent to collect attendee's private contact information. We acknowledge that it is important to document the attendance at these events, but this information should be collected by either the BC EAO or CEAA.
- 5) Allow for a poster board session where people can engage one-on-one with the proponent, consultants, and BCEAO and CEAA staff, but follow this with a town-hall question and answer session, where people can ask questions and the answers are shared with everyone. This allows people that would not be willing to speak up in a townhall session to interact directly with consultants/proponents/BCEAOstaff/CEAA staff, but it also allows for everyone to learn about concerns that other community members may have with the project during the townhall session.
- 6) Do not permit the proponent to offer donations or other bribes to any community groups for the duration of environmental assessment process.
- 7) Provide a way for the general public to provide feedback during the open house. There needs to be a mechanism to allow older generations that are not comfortable with computers to submit their feedback.
- 8) Ensure that the open houses and public comment periods are advertised widely, not only in local newspapers, but via social media, radio, TV ads, and email notifications. Ensure that the local government body and community groups are also aware of these public comment periods to allow them to advertise through their mailing lists as well.

6) Approval with mitigation should not be a foregone conclusion

The BC Environmental Assessment process is geared to approve projects, provided that the impacts of the project can be mitigated. However, just because a project can be mitigated does not mean that it should be approved if the adverse environmental effects are significant.

For example, say a proposed project will kill 100% of the salmon in a creek, provided the proponent can demonstrate mitigation measures the project will be approved, even if it now kills 90% of the salmon in the creek. This is obviously an extreme example, but there appears to be no definition to determine how much mitigation is enough, and whether mitigation is even possible.

The BC environmental assessment process currently does not use metrics for the conditions imposed on a project, but aspirational words like maximize or minimize. This leaves the public with no recourse for compensation to damages.

RECOMMENDATIONS

- Recognize that sometimes the adverse environmental impacts of a project simply cannot be mitigated.
- Ensure that BC's laws and any conditions placed on a project are clear, enforceable, and enforced.

- Restructure the BC environmental assessment process so that proponents need to prove that, on balance, the environmental, health, and socio-economic harm their projects create can be justified by demonstrable benefits to the affected communities.
- Establish land and water use legislation for public lands that adequately captures our 21st international commitments to maintaining biodiversity, preventing runaway climate change, and upholding indigenous rights and title as per UNDRIP.
- Implement legislation and/or policy to make it clear that the purpose of all decisions under resource, public health, and environmental statutes is to promote sustainability and public health. Projects must make a net contribution to sustainability and address cumulative impacts, including our contribution to climate change.

7) Protecting and restoring ecosystem health needs to be prioritized

Healthy ecosystems are vital for healthy communities. However the current priority of the environmental assessment process appears to be to enable industry to proceed regardless of the costs to the environment and human health.

RECOMMENDATIONS

- Ensure that projects make a net contribution to ecosystem health.
- Use “professional reliance” only where appropriate and in ways that protect the environment and health.

8) Need to evaluate all components of a project, including upstream and downstream impacts and climate change emissions

Proponents are gaming the system by breaking the components up into separate environmental assessments. For example, Woodfibre LNG could not proceed without the FortisBC pipeline & compressor station, and the upgrades to BC hydro power lines. However, all of these components are being assessed separately to avoid triggering a Federal CEAA review. BC Hydro as a utility is claiming that they do not need to be addressed at all.

An analysis by the Pembina Institute¹ shows that Woodfibre LNG and its associated upstream operations could result in “the drilling of 24 extra gas wells, the emission of 0.81 million tonnes of carbon pollution, and the usage of 0.5 million cubic metres of freshwater per year.” This is equivalent to adding 170,000 cars to the road, and the annual freshwater use of 5,500 Canadians (see Figure 7).

¹ <http://www.pembina.org/pub/woodfibre-lng-infographic>

Locally, Woodfibre LNG will create 1.6 times the greenhouse gas emissions of all of Squamish. Squamish produces 88,538 tonnes of CO₂ pollution every year (calculations by Carbon Engineering).² Woodfibre LNG estimates the project will produce an additional 142,000 tonnes of CO₂ pollution every year during operations.³ It doesn't matter how much we as individuals reduce our personal greenhouse gas emissions when industry is permitted to pollute so much. Industry needs to be held accountable.

We simply cannot allow new fossil fuel infrastructure to be built if B.C. wants to achieve our legislated climate target for 2020. In fact, today, the Pembina Institute released a press release stating that “Two approved projects, LNG Canada and Woodfibre LNG, would collectively increase annual carbon pollution by 9.1 Mt by 2030, and 10.2 Mt by 2050. That would leave less than 3 Mt for the rest of the economy — and make it virtually impossible for B.C. to meet its 2050 target.”⁴

RECOMMENDATIONS

- Projects need to be evaluated in their entirety, including upstream and downstream impacts, cumulative impacts, and total climate change emissions.
- Projects must prove a net climate benefit.

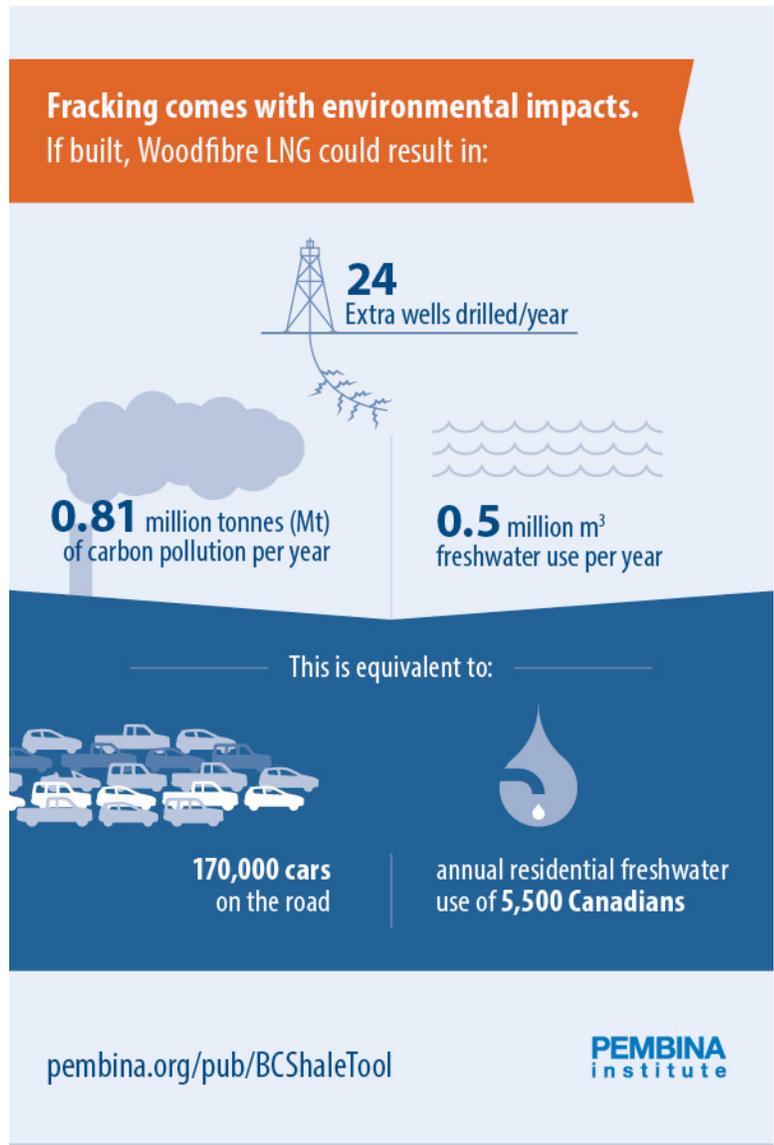


Figure 7: Infographic showing upstream impacts of Woodfibre LNG.

² Stukas, A. 2016. Presentation by Anna Stukas, Carbon Engineering. At: Climate Town Hall organized by Pamela Goldsmith-Jones in Squamish on 2016-07-08.

³ Woodfibre LNG. 2015. Application for an Environmental Assessment Certificate, Section 5.3 Greenhouse Gas Management. Page 5.3-38

⁴ <http://www.pembina.org/op-ed/bc-lng-pollution>

9) Need to evaluate cumulative impacts

Cumulative impacts are poorly understood and not assessed properly through the current Environmental Assessment process (see Figure 8).

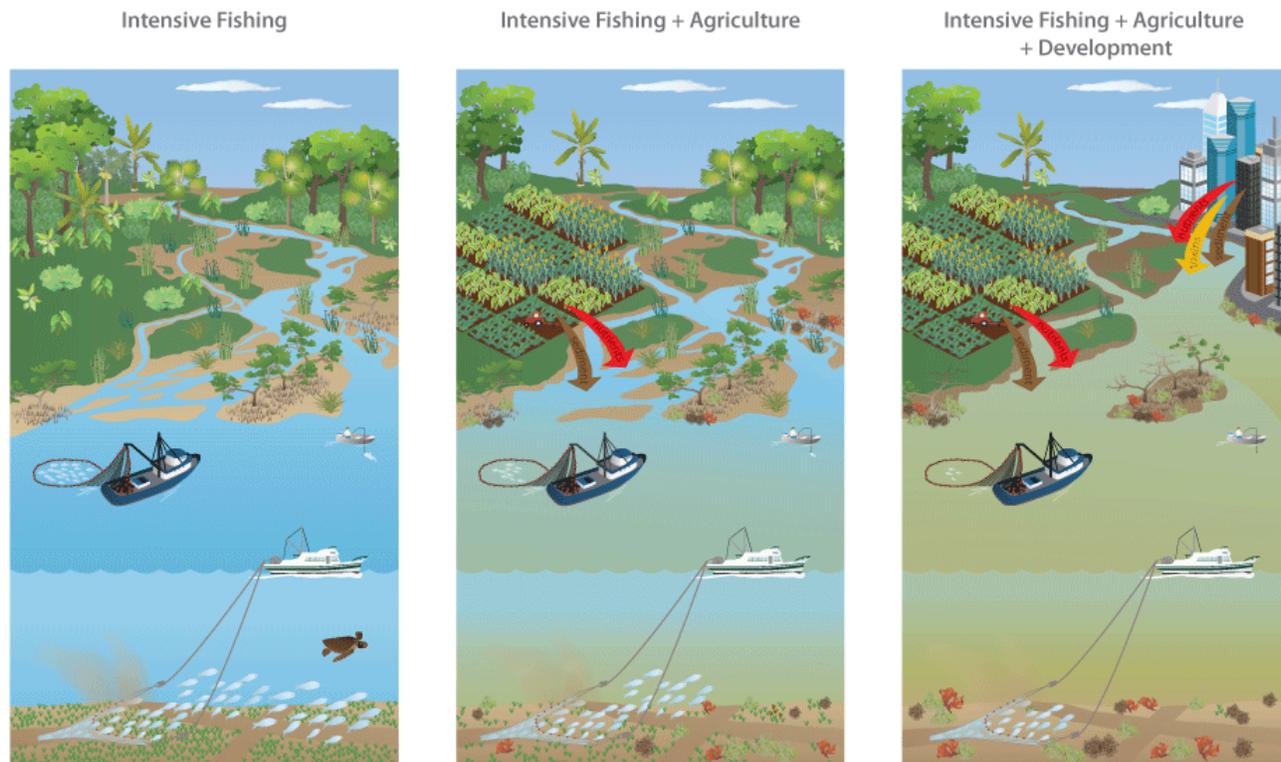


Figure 8: The cumulative impacts of intensive fishing, agriculture, and development on an ecosystem are demonstrated by decreased water quality, declining fish populations, loss of biodiversity, habitat degradation, and loss of complexity of waterways. Diagram created by Tracey Saxby for the United Nations Environment Program.

RECOMMENDATIONS

- Need a rigorous and systematic framework to address cumulative effects.
- Provincial and Federal governments need to take leadership on this issue.

10) Improve socio-economic impact analyses and acknowledge the value of ecosystem functions and ecosystem services

A recent report estimates the value of Howe Sound's ecosystem assets collectively provide up to \$4.7 billion in ecosystem benefits every year.⁵ The ecosystems that will be directly or indirectly affected at McNab Creek by the proposed Burnco project, such as estuaries, rivers, riparian buffers, and beaches in Howe Sound collectively provide over \$300 Million p.a. in ecosystem benefits. In comparison, Burnco gravel mine claims an unsubstantiated figure of

⁵ Molnar M (2015) Sound Investment: Measuring the return on Howe Sound's ecosystem assets. David Suzuki Foundation. 77pp.

\$1 Million p.a. in local, Provincial, Federal and payroll taxes. This is a thin economic rationale for risking the destruction of the McNab Creek area and losing the ecosystem services that are provided, including wild salmon and salmon habitat.

Similarly, as LNG prices have plummeted 70%, the BC Liberals have slashed taxes to try to make LNG projects viable. With taxes charged on profits, BC bears all the risk and no reward as profits may never be realized. Meanwhile, the tax breaks and subsidies awarded to prop up an LNG export facility is rapidly adding up, such as the \$43.5 million every year in electricity subsidies that was granted as part of the e-Drive subsidy. We have requested economic justification for the e-Drive subsidy via several FOI requests, all of which have been denied by Ministry staff.

The health and social costs have also not been accounted for. Air pollution from Woodfibre LNG will decrease our local air quality which will impact public health at an estimated cost of \$20 million every year.

Even though Woodfibre LNG is using hydro as the main power source, there will still be significant air pollution during operation. Woodfibre LNG is estimating air pollution emissions of 295.7 tonnes of nitrous oxides (NO_x) and 43.8 tonnes of sulfur dioxide (SO₂) every year (See Table 5.2-14 of the Air Quality Section of Woodfibre LNG's environmental assessment application). Emissions of NO_x and SO₂ interact with other compounds to form fine particles, which can affect both the lungs and the heart. Exposure to these particles is linked to increased risk of respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; decreased lung function; aggravated asthma; onset of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease.⁶

A new study⁷ published in the scientific journal, Climatic Change, estimates the true social costs of air pollution that aren't accounted for in the cost of fossil fuels and other pollutants. Social costs include the health impacts of air pollution as well as impacts from climate change. The study found that sulfur dioxide costs \$42,000 per tonne, and nitrous oxides cost \$67,000 per tonne.

Woodfibre LNG is estimating air pollution emissions of 295.7 tonnes of nitrous oxides (NO_x) and 43.8 tonnes of sulfur dioxide (SO₂) every year (See Table 5.2-14 of the Air Quality Section of Woodfibre LNG's environmental assessment application). Combined, that is a social cost of over \$20 million every year.

"This research shows that we need to transition away from fossil fuels not just to mitigate the risks associated with climate change, but to reduce the economic and health impacts of air pollution in general."

RECOMMENDATIONS

- Acknowledge the value of ecosystem functions and ecosystem services that will be improved or degraded/lost and determine whether it makes economic sense for a project to proceed.
- Improve socio-economic impact analyses.
- Make it mandatory to include a community benefits analysis that clarifies what the community gets for access to our natural resources compared to pollution or degradation of our natural environment and health.

⁶ Mills et al (2009) Adverse cardiovascular effects of air pollution. Nature Clinical Practice Cardiovascular Medicine 6: 36-44

⁷ Shindell 2015, The social costs of atmospheric release. Climatic Change.

11) Government mandate to develop LNG export facilities constitutes a conflict of interest

For the Woodfibre LNG project, the Ministers responsible for issuing the BC Environmental Assessment Certificate demonstrated a clear conflict of interest as the BC Liberals' mandate was to develop LNG export facilities. This seriously undermines public trust in the integrity of this process, and raises concerns that the project's environmental assessment received a rubber stamp. See the attached mandate letter to Rich Coleman for 2015 that prioritizes development of a new LNG export industry (Appendix 4), and the 2012 strategy to develop LNG (Appendix 5).

In September 2016, thanks to a Freedom of Information request by a local reporter, Jennifer Thuncher, we learned that the Province had already considered intervening when council denied FortisBC to drill in our estuary.⁸ This demonstrates how important the success of this project was for the BC Liberal's re-election plans.



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SEPTEMBER 5, 2016 09:45 AM

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Minister of Natural Gas Development Rich Coleman, left, at the government's Squamish Science World LNG seminars in Squamish Dec. 17, 2014. FOI documents show in early 2015 the province was considering tools to intervene in Squamish council decisions. Photo: File

Weekly POLL

Have you even considered adopting a child?

Yes

No

I can't even remember to feed my plants! So, no.

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Figure 9: Squamish Chief article detailing an FOI that revealed the Province considered intervening in the FortisBC pipeline proposal, highlighting the importance of this project to the government, and the inherent conflict of interest that ensues when a government is responsible for approving projects it has a mandate to promote and develop such as LNG export facilities.

The importance of Woodfibre LNG to the BC Liberal's re-election campaign was reinforced in November 2016 when Premier Christy Clark organized a last-minute press conference over at the Woodfibre LNG site to announce that the "project is a go" thanks to the latest eDrive electricity rate for the LNG industry. (Note: this eDrive rate is equivalent to a subsidy of up to \$43.5 million every year for Woodfibre LNG – this multi-million subsidy will increase the hydro bills of every British Columbian so Woodfibre LNG can have cheap power.)

⁸ <http://www.squamishchief.com/news/local-news/province-considered-intervening-in-pipeline-proposal-in-squamish-1.2336943>

Never mind that Woodfibre LNG had no customers, no financing, no First Nations approval, no social license, no LNG tanker regulations in place, or that the project still needed to undergo another Environmental Assessment for the change from seawater cooling to air cooling. The announcement came the day before the BC Liberal Convention, and was so shrouded in secrecy that Squamish's mayor wasn't invited.



Figure 10: Premier Clark announces the e-Drive deal for LNG projects at the Woodfibre LNG site in November 2016.

This appeared to be a desperate election ploy by Christy Clark who needed to show that at least one LNG project was moving forward. However, Woodfibre LNG isn't a publicly traded company, so the Financial Investment Decision is meaningless as it can be reversed at any time. In an article published in January 2017 by investigative reporter, Mychaylo Prystupa, Squamish Nation chief, Ian Campbell, called the PR stunt "misleading."⁹

In February 2017, investigative reporter Bob Mackin, obtained a photograph via Freedom of Information Act of Deputy Premier Rich Coleman and Sukanto Tanoto, the owner of Woodfibre LNG, holding a letter of understanding that was signed in October 2016 (See Figure 11).¹⁰ The Provincial government still (to this date) refuses to release the letter.

⁹ <https://thetyee.ca/News/2017/01/04/PR-Stunt-LNG/>

¹⁰ <http://thebreaker.news/news/why-wont-rich-coleman-release-singapore-signed-lng-deal-with-a-party-donor/>

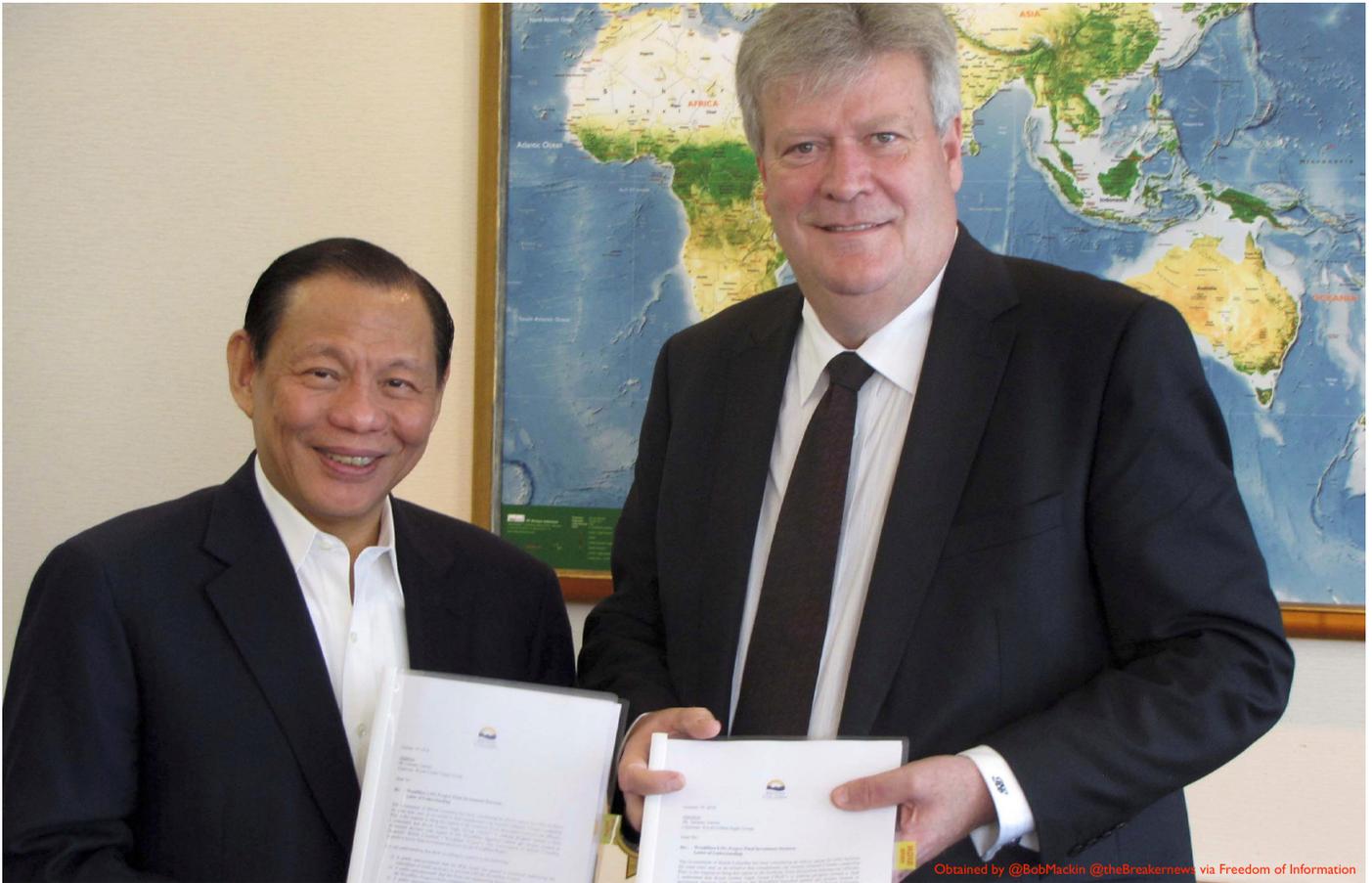


Figure 11: Owner of Woodfibre LNG, Sukanto Tanoto and Deputy Premier Rich Coleman hold documents that the Provincial government still refuses to release under FOI.

In September 2017 an FOI leaked through the Ministry of Natural Gas shows that three "working groups" from the fossil fuel industry (including Woodfibre LNG) were wordsmithing the province's Climate Leadership Plan, in Calgary.¹¹

"In sum, the BC government carried out secret meetings in another province with an industry that is a top contributor to the BC Liberal Party to shape policy that ought to constrain that very industry — as any meaningful climate policy must do in relation to the fossil fuel sector."

Decision making on climate change policy should happen in public, with stakeholder input, not behind closed doors. This is a shocking example of institutional corruption, and it's important to connect the dots between political donations and political favours.

Woodfibre LNG has donated \$201,434 to the BC Liberals since 2014, and a Globe and Mail investigation¹² revealed that \$70,000 of those donations were allegedly made illegally by Woodfibre LNG's staff. FortisBC (the proponent of

¹¹ <http://www.policynote.ca/climate-leadership-plan-big-oils-boardroom/>

¹² <https://beta.theglobeandmail.com/news/investigations/wild-west-bc-lobbyists-breaking-one-of-provinces-few-political-donationrules/article34207677/>

the associated gas pipeline) has donated an additional \$152,289, which brings us to a grand total of \$335,773 in donations.¹³

The donations from Woodfibre LNG began as soon as the project started its environmental assessment. This calls into question the integrity of BC's environmental assessment process, and raises real concerns that Woodfibre LNG has bought a rubber stamp approval for their project (see Figure 12).

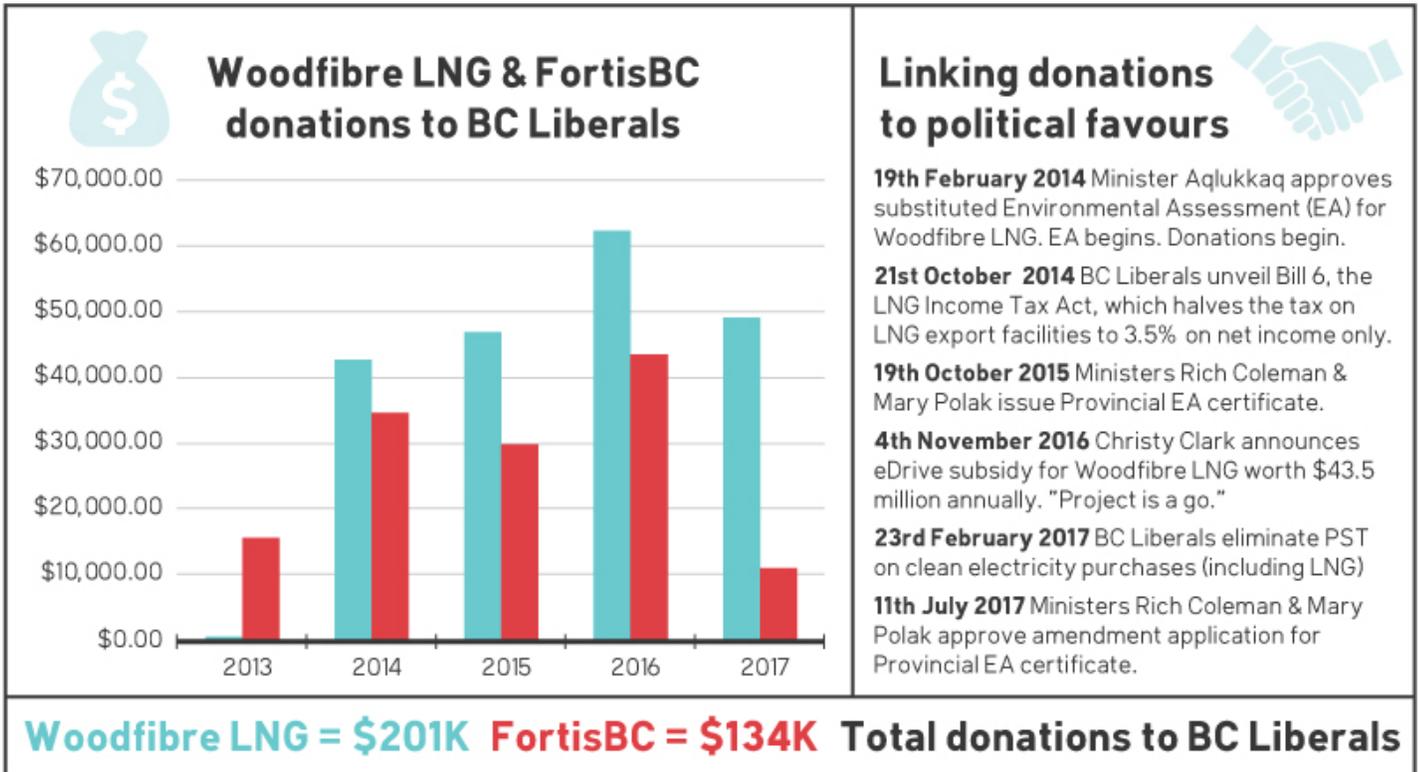


Figure 12: Donations from Woodfibre LNG and FortisBC to the BC Liberals since 2013. Key political favours are also highlighted.

The BC Minister of Natural Gas Development, Rich Coleman, who was responsible for reviewing the environmental and social impacts of Woodfibre LNG also had a mandate to develop an LNG export industry. But we were assured that there was no conflict of interest.

Statement by Minister Coleman: "With the BC Jobs Plan, the Province has committed to having our first LNG plant up and running by 2015, with a total of three LNG facilities operating by 2020." (See Appendix 5)

Mandate from Premier Clark to Minister Coleman in 2015: "Work with proponents to confirm Final Investment Decisions have been reached for at least three LNG projects and their associated pipelines in support of having these projects in-service by 2020." (See Appendix 4)

It must be noted that Woodfibre LNG has also donated substantial sums to the BC NDP, with more than \$63,750.00 donated since 2014, plus \$2,500 donated directly by Byng Giraud.¹⁴ It is unclear whether this direct donation from Byng Giraud is part of the alleged illegal donations.

¹³ <https://docs.google.com/spreadsheets/d/1kTyBP4g-SEoMHauOZsy9rVTR-tkccdmDlnHNq8apfE8/edit#gid=1581840441>

There is an additional concern regarding lobbyists. At both the Provincial and Federal levels, Woodfibre has employed lobbyists to argue for favourable treatment for its proposal (employing, among others, Moe Sihota, a former President of the Provincial NDP Party and Kim Baird, the Chair of a Federal panel reviewing the Kinder Morgan/ Trans Mountain Joint Review panel process). The public has no such recourse, nor is it made aware of the extent of such representations.

In conclusion, there is an inherent conflict of interest when the government responsible for approving and regulating projects also has a mandate to promote and develop projects, such as LNG export facilities. This undermines the integrity of the EA process.

The “Wild West of Political Donations” resulted in a system where access to politicians (and political favours) could be bought by the highest bidder. It is important for the current Provincial government to recognize how past political decisions may have been unfairly influenced by donations from corporations, unions and wealthy individuals all over the world. We applaud the recent legislation that was passed banning major donations from corporations and unions, but without a public inquiry into how these donations have influenced past political decisions British Columbians will continue to suffer the consequences for decades to come.

RECOMMENDATIONS

- Expand the scope of this review to address political interference from external or internal sources, or initiate an additional review to address this issue.
- Recognize that donations to political parties have influenced political decisions.
- Make it illegal to donate to political parties using a numbered corporation.
- Launch an independent investigation into the role political donations have had in shaping major decisions in our province.
- Abolish the substituted Environmental Assessment process. BC is the only province that allows a substituted EA process where the BC EAO is responsible for conducting the assessment on behalf of the Federal government.
- The Provincial government should not be responsible for approving industrial projects that they have a mandate to promote.

12) Loss of trust: public engagement is meaningless

Public engagement is no longer meaningful, but is instead used as a way to tick a checkbox on a form. This fails to highlight the scope of public opposition and concern about proposed projects like Woodfibre LNG or the Burnco gravel mine.

¹⁴ <http://contributions.electionsbc.gov.bc.ca/pcs/SA1ASearch.aspx>

In 2014/2015 we generated the most public comment submissions for any environmental assessment, twice, for the Woodfibre LNG project with more than 1,300 and 1,700 comments were submitted. For comparison, a much larger LNG export facility proposed in Louisiana garnered 6 public comments.

Thanks to the efforts of our volunteers, every community around Howe Sound has expressed opposition to the Woodfibre LNG project. (See the list of resolutions.¹⁵)

More than 17,000 people around Howe Sound have signed a declaration¹⁶ calling on the Provincial and Federal governments to reject the Woodfibre LNG project and its associated pipelines and tankers.

Despite our best efforts and input from PhD and MSc scientists, LNG engineers, and other professionals documenting that Woodfibre LNG threatens the recovery of Howe Sound, and poses a safety risk for people living in communities around Howe Sound, the project was approved at both the Provincial and Federal level.

In February 2016, three public engagement meetings coordinated by MP Pamela Goldsmith-Jones had to turn people away at the door in Squamish, West Vancouver, and Gibsons (Figures 13 & 14). Less than three weeks later, Minister McKenna approved the Federal EA for Woodfibre LNG. CEEA hadn't finished uploading all of the public comments yet, let alone allowed enough time to review the scientific validity of concerns raised by the general public.



¹⁵ http://www.myseatosky.org/no_social_license

¹⁶ <http://www.myseatosky.org/declaration>

Figure 13: Squamish townhall on 27th February 2016, organized by our local MP, Pamela Goldsmith-Jones to gather input during the CEAA public comment period. The room overflowed with so many people they had to set up chairs on the stage. NOTE: Only one person spoke in support of the project. These comments were all video-taped by Pamela’s office. We also have footage available here: <https://www.youtube.com/watch?v=fxpp3xQyas>



Figure 14: The next day at the West Vancouver townhall on 28th February, it was standing room only and people overflowed in the corridors. The same thing happened in Gibsons a few days later, with people turned away from the townhall as the venue was over capacity.

It really does seem that "...public consultation is meant to merely survey public opinion and “give the appearance that government has created meaningful opportunities for citizen input into policy decisions.”

[SEE QUOTE ABOVE FROM ASSOCIATE PROFESSOR LAURIE ADKIN IN THIS DESMOG ARTICLE](#)

With regards to the Burnco gravel mine environmental assessment, Sunshine Coast Regional District Director, Ian Winn, wrote “constituents feel they have been treated unfairly, excluded, ignored, disregarded and dismissed during the EAO process. They are frustrated, disillusioned, and extremely upset.”

RECOMMENDATIONS

- Restore meaningful public engagement
- Recognize that participating in the EA process is onerous for general public + local government.
- Increase the legislated notice for open houses to a minimum of 1 month.

- Increase the legislated time for public comment to a minimum of 3 months to allow for meaningful public engagement (and more for larger documents).
- Change legislation to ensure that advertising of public comments periods is required in both local media and social media avenues, as widely as possible.
- Avoid concurrent or back-to-back public comment periods.
- Avoid public comment periods in December (over Christmas) or August when most people are distracted with commitments to family and friends.
- Provide materials in advance and include synthesized materials from open house displays.
- Host open houses at the beginning of public comment periods to allow for follow-up questions with consultants.
- Give communities decision-making power
- Set up a transparent process that incorporates public support as a metric to determine the final EA decision by the Ministers.
- Compare the percentage of support/opposition for a proposed project, and give more weight local support.
- Evaluate whether the project has the social license to proceed

13) Ensure that First Nations are engaged and their rights respected as per UNDRIP

First Nations have constitutionally protected rights and title, and have a right to be consulted and accommodated on decisions that affect their rights and title. First Nations are often overwhelmed with multiple project proposals at the same time, and have limited access to staff and financial resources to enable them to evaluate each project and respond in a meaningful way.

RECOMMENDATIONS

- Respect First Nations rights and title as per UNDRIP.
- Consult with First Nations on a government to government basis providing adequate time and resources for individual First Nations to respond.

14) Provide recourse for the general public to hold proponents accountable

There is currently no recourse for the general public after the damage is done to hold proponents accountable. Often the corporation will simply dissolve once an accident has occurred. Mount Polley, Shawnigan Lake, the Nexen chemical plant in Squamish, Woodfibre Pulp and Paper, and Britannia Mine are perfect examples where the taxpayer was left on the hook to clean up the mess.

RECOMMENDATIONS

- Ensure that BC's laws are clear, enforceable, and enforced.



- Laws that protect human health and the natural environment must set clear, verifiable and measurable standards and create clear consequences for non-compliance.
- At the same time, the government has failed to enforce environmental and public health laws. Lax enforcement means that companies and consultants that break the law are not caught while those who follow the law are at a competitive disadvantage.
- The government must ensure that government agencies charged with oversight and enforcement have resources, training and a culture that enables them to detect and prosecute law breakers. Laws and policies must encourage and protect whistle blowers and citizens who call for enforcement against law breakers.

We thank you for the opportunity to inform this review of the professional reliance model. We trust that this document will serve to inform readers of the extent to which the practice of Professional Reliance has contributed to undermining public trust in our Environmental Assessment processes and, indeed, in our experience of the “fair and transparent” functioning of several of our democratic institutions. Please feel free to contact us for further information or clarification.

Sincerely,

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APPENDIX 1:

Template letter targeting Ministers, MPs, and MLAs regarding Burnco gravel mine

Dear Minister George Heyman and Minister Michelle Mungall,

Cc: MLA Nicolas Simons, MLA Sonia Furstenu, MP Pamela Goldsmith-Jones, MP Fin Donnelly, relevant MLA

Estuaries are vital for our wild salmon, and the endangered Southern Resident Orcas that depend on them. The Burnco gravel mine threatens one of only three estuaries we have in Howe Sound. Given the proximity of alternative, undeveloped gravel resources, why should this gravel mine be permitted in such a vitally important and sensitive ecosystem?

I am writing to you directly because I do not trust the integrity of the environmental assessment process. Public engagement is no longer meaningful, but is instead used as a way to tick a checkbox on a form. This fails to highlight the scope of public opposition and concern about the Burnco gravel mine.

The new Provincial government has acknowledged that the professional reliance approach has failed us, and that science that is bought and paid for by the proponent cannot be trusted. The salmon data available for McNab Creek comes from consultants hired by Burnco, and the only independent data has been collected by one local citizen scientist. The BC environmental assessment office is making recommendations to approve the project based on insufficient and biased data.

The Department of Fisheries and Oceans has already refused permits, twice, for a gravel mine at McNab Creek, due to the impacts to this critical salmon spawning habitat.

This is the first environmental assessment decision to be made by the new BC NDP government. This is a real opportunity for you to fix the mistakes of the previous BC Liberal government and ensure that our wild salmon are protected.

We call on you to:

- 1) Initiate a review of the environmental assessment process for the Burnco gravel mine thus far.
- 2) Conduct a robust and fully independent baseline assessment of wild salmon populations in McNab Creek.

Sincerely,

NAME

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