Proposed Woodfibre LNG Project – Comments #201 – 300, Table 3 of 17

The following table includes Woodfibre LNG Limited's responses to comments #201 - 300 submitted to the BC Environmental Assessment Office (EAO) as part of the 60-day public comment period held between January 22 and March 23, 2015. The following table is sorted chronologically. Where multiple comments were received in one submission, they have been separated to allow for specific responses.

EAO has reviewed the public's comments and Woodfibre LNG Limited's responses and is satisfied that Woodfibre LNG Limited has addressed the public's comments for the purpose of the Application stage of the Environmental Assessment for the proposed Woodfibre LNG Project. The time and effort taken by those who submitted comments to EAO during the public comment period is appreciated and all of the comments received will be considered in the Environmental Assessment of the proposed Woodfibre LNG Project.

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
201	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	What is the estimation of At-Shore wave heights from LNG tanker bow and stern wakes? Is there wave danger to small children onshore?	Effects from Shipping Wake	Additional information on the vessel wakes, including the effects at the shore, was provided to the EAO on April 23, 2015. This study examines wake wash associated with passage of LNG carriers, escort tugs, worker ferries, and existing BC ferries. This additional study confirmed that based on the low speed at which the LNG carriers will travel in Howe Sound, vessel wakes are expected to be very small, essentially at the verge of wake formation. The tugs operate at higher velocities relative to their size and therefore more readily produce a wake. The wave period and wave lengths for Project-related vessels are in the range of typical wind-generated waves, and will behave in much the same way as natural waves of the same size when they reach shore. Wakes generated by the existing ferries in Howe Sound have somewhat longer wave periods and wave lengths compared to Project vessels and natural conditions, and therefore are relatively more noticeable when compared to natural ambient conditions. As noted, many people remember the notable wakes generated by the PacifiCat fast ferries. The fast ferries produced wakes with wave periods of around 9 seconds, which is comparable to ocean swell waves and would be much more noticeable against the background ambient conditions.
202	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	What is the estimation of At-Shore wave heights from LNG tanker bow and stern wakes? Is there wave danger to small children onshore?	Effects from Shipping Wake	Additional information on the vessel wakes, including the effects at the shore, was provided to the EAO on April 23, 2015. This study examines wake wash associated with passage of LNG carriers, escort tugs, worker ferries, and existing BC ferries. This additional study confirmed that based on the low speed at which the LNG carriers will travel in Howe Sound, vessel wakes are expected to be very small, essentially at the verge of wake formation. The tugs operate at higher velocities relative to their size and therefore more readily produce a wake. The wave period and wave lengths for Project-related vessels are in the range of typical wind-generated waves, and will behave in much the same way as natural waves of the same size when they reach shore. Wakes generated by the existing ferries in Howe Sound have somewhat longer wave periods and wave lengths compared to Project vessels and natural conditions, and therefore are relatively more noticeable when compared to natural ambient conditions. As noted, many people remember the notable wakes generated by the PacifiCat fast ferries. The fast ferries produced wakes with wave periods of around 9 seconds, which is comparable to ocean swell waves and would be much more noticeable against the background ambient conditions.

EAO's Response

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
					Thank you for your comment. The Woodfibre LNG Project will be powered by electricity provided by BC Hydro. By powering the plant with electricity, instead of natural gas, greenhouse gas emissions will be reduced by about 80%. This will make Woodfibre LNG one of the cleanest LNG facilities in the world.
203	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	What is the estimation of increases in respiratory and allergenic ailments in nearby (Howe Sound) populations directly or indirectly attributable to airborne emissions from the Woodfibre LNG plant and storage tankers and from related marine traffic, including cumulative effects.	Effects of the Project on Human Health	Information on the air quality emissions is included in Section 5.2 Atmospheric Environment (Air Quality) of the Application. The Application concluded that the changes to air quality as a result of Project-related effects are below ambient air quality criteria for all indicator compounds and the residual effects are considered negligible or not significant.
					Section 9.2.2 Human Health Risk Assessment included an assessment of the potential effects on humans by Project-related emissions. The Application concluded that there were no Project-related significant adverse effects.
					Please also refer to Air Quality information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
					Thank you for your comment. The Woodfibre LNG Project will be powered by electricity provided by BC Hydro. By powering the plant with electricity, instead of natural gas, greenhouse gas emissions will be reduced by about 80%. This will make Woodfibre LNG one of the cleanest LNG facilities in the world.
204	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	What is the estimation of increases in respiratory and allergenic ailments in nearby (Howe Sound) populations directly or indirectly attributable to airborne emissions from the Woodfibre LNG plant and storage tankers and from related marine traffic, including cumulative effects	Effects of the Project on Human Health	 Information on the air quality emissions is included in Section 5.2 Atmospheric Environment (Air Quality) of the Application. The Application concluded that the changes to air quality as a result of Project-related effects are below ambient air quality criteria for all indicator compounds and the residual effects are considered negligible or not significant. Section 9.2.2 Human Health Risk Assessment included an assessment of the potential effects on humans by Project-related emissions. The Application concluded that there were no Project- related significant adverse effects. Please also refer to Air Quality information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments. Thank you for your comment. The Woodfibre LNG Project will be powered by electricity provided by BC Hydro. By powering the plant with electricity, instead of natural gas, greenhouse gas emissions will be reduced by about 80%. This will make Woodfibre LNG one of the cleanest LNG facilities in the world. Information on the air quality emissions is included in Section 5.2 Atmospheric Environment (Air Quality) of the Application. The Application concluded that the changes to air quality as a result of Project-related effects are below ambient air quality criteria for all indicator compounds and the residual effects are considered negligible or not significant. Section 9.2.2 Human Health Risk Assessment included an assessment of the potential effects on humans by Project-related emissions. The Application concluded that there were no Project- related significant adverse effects. Please also refer to Air Quality information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
					Section 9.2.2 Human Health Risk Assessment included an assessment of the potential effects on humans by Project-related emissions. The Application concluded that there were no Project-related significant adverse effects.
					Please also refer to Air Quality information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.

EAO's Response

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
205	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	I am concerned about the loss of safety in Howe Sound due to accidental or deliberate rupture of in- transit LNG carrier and/or storage tankers, and a resulting plume-fire extending outward from the tanker. What is the proponent planning to do, in advance, to assist the surrounding communities in the event of such an accident?	Safety	Thank you for your comment. At Woodfibre LNG, safety is the number one priority. Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and Gas Activities Act and the associated Liquefied Natural Gas Facility Regulation, national and BC building codes, as well as national and international standards, guidelines and codes of practice where there are no applicable codes for BC. Liquefied natural gas has been shipped safely around the world for more than 50 years. There has never been a recorded incident involving a loss of containment of an LNG carrier at sea. LNG carriers are among the most modern and sophisticated ships in operation. These ships have robust containment systems, double- hull protection and are heavily regulated by international and federal standards. Subject to the recommendations of Transport Canada's Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) Review Committee, which includes Transport Canada, Pacific Pilotage Authority, BC Coast Pilots and Canadian Coast Guard, Woodfibre LNG has always maintained that it would deploy at least three tugs, at least one of which will be tethered, to provide a dynamic safety awareness zone for recreational and pleasure craft around the LNG carrier during its transit within Howe Sound. This dynamic safety awareness zone would extend up to 50 meters on either side of the vessel and up to 500 metres in front and, being dynamic in nature, would be transient with the movement of the LNG carrier. This arrangement of tugs also serves as an emergency provision to address contingencies that may require the vessel to stop or engage in manoeuvers at very short notice. The Accidents and Malfunctions section (Section 11.0) of the Application assessed the consequence and frequency of effects resulting from credible worst case scenarios for the Project. It showed that potential risks to the public were within the tolerable risk

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
206	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	I am concerned about the loss of safety at the LNG Terminal due to accidental or deliberate rupture of in-transit LNG carrier and/or storage tankers, and a resulting plume-fire extending outward from the tanker. What is the proponent planning to do, in advance, to assist the surrounding communities in the event of such an accident?	Safety	Thank you for your comment. At Woodfibre LNG, safety is the number one priority. Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and Gas Activities Act and the associated Liquefied Natural Gas Facility Regulation, national and BC building codes, as well as national and international standards, guidelines and codes of practice where there are no applicable codes for BC. Liquefied natural gas has been shipped safely around the world for more than 50 years. There has never been a recorded incident involving a loss of containment of an LNG carrier at sea. LNG carriers are among the most modern and sophisticated ships in operation. These ships have robust containment systems, double- hull protection and are heavily regulated by international and federal standards. Subject to the recommendations of Transport Canada's Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) Review Committee, which includes Transport Canada, Pacific Pilotage Authority, BC Coast Pilots and Canadian Coast Guard, Woodfibre LNG has always maintained that it would deploy at least three tugs, at least one of which will be tethered, to provide a dynamic safety awareness zone for recreational and pleasure craft around the LNG carrier during its transit within Howe Sound. This dynamic safety awareness zone would extend up to 50 meters on either side of the vessel and up to 500 metres in front and, being dynamic in nature, would be transient with the movement of the LNG carrier. This arrangement of tugs also serves as an emergency provision to address contingencies that may require the vessel to stop or engage in manoeuvers at very short notice. The Accidents and Malfunctions section (Section 11.0) of the Application assessed the consequence and frequency of effects resulting from credible worst case scenarios for the Project. It showed that potential risks to the public were within the tolerable risk

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
207	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	I am concerned that the Woodfibre LNG plant and its storage and in-transit tankers will emit several greenhouse gases including Sox, Nox and particulates of various sizes in the Howe Sound airshed. What studies have been undertaken to detail these emissions and their effects on the quality of the air in the Howe Sound airshed and their effects on human health and well-being?	Air Quality Greenhouse Gas Emissions	 Thank you for your comment. As part of Woodfibre LNG's Environmental Assessment Certificate Application, air dispersion modelling based on planned activities and equipment use — including marine vessels and flaring — were undertaken to predict air emissions from the Project operation phase. The results of the dispersion modelling were compared against federal and provincial ambient air quality criteria. All predicted concentrations were below the air quality criteria. The majority of Woodfibre LNG air emissions will come from elements removed from the natural gas prior to liquefaction, which are incinerated. Woodfibre LNG characterized current climate and climate trends using the Squamish Airport climate station. At peak capacity, the Project will have a greenhouse gas intensity of 0.059 t CO2e per tonne LNG, which is below the threshold of 0.16 t CO2e per tonne LNG in the Greenhouse Gas Industrial Reporting and Control Act. For more information, please see: Section 9.2.2 Human Health Risk Assessment includes an assessment of the potential effects on humans by Project- related emissions. The Application concluded that there were no Project-related significant adverse effects. Section 5.2 Atmospheric Environment (Air Quality) of the Application includes an assessment of the potential Project- related effects to air quality. The Application concluded that the changes to air quality as a result of Project-related effects are below ambient air quality criteria for all indicator compounds and the residual effects are considered negligible or not significant. Please also refer to Air Quality information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
208(i)	February 19, 2015	Matt Blackman - Squamish, British Columbia	As a financial analyst, please explain how Woodfibre LNG will benefit BC taxpayers. Given the current natural gas/LNG market which is expected to persist for the foreseeable future, how long will it take for this industry to generate a profit? Currently LNG prices in Asia are sub \$10/million BTUs. The IEA estimated that BC LNG will cost between \$13 and \$14 per mBTU to get it to Asia. LNG prices were temporarily elevated by the Fukushima earthquake and tsunami but Japan is now taking steps to remedy energy supply including building new, safer nuclear power plants. It is highly conceivable that LNG prices will stay mired below \$14/mBTUs for many years to come. How is reducing tax rates to near zero, granting a number of other concession and selling our natural gas at low prices to LNG producers good for BC taxpayers other than possibly providing a few short-term construction jobs and less than 100 long-term jobs good for BC and BC taxpayers?	LNG Industry Economic Benefits of the Project	 Thank you for your comments. As LNG Projects involve significant capital investment which is recovered over a long period of time, final investment decisions (FIDs) on LNG projects are not made lightly, nor are they based on the price of oil or gas on any given day, or even a given year. Rather, FIDs are made based on long-term forecasts and take into account numerous factors, many of which are specific to the project or the proponent(s). Current forecasts are that the global demand for energy will increase by 35% by 2035, and the specific demand for natural gas is expected to increase by 55%¹. The increasing standards of living and rapid economic growth in Asia (6-8% GDP growth annually) are the key triggers for the increase in demand². China's energy demand increases by 5% nnually³. Not only is Asia seeking new sources of energy to meet needs (diversify), Asia is looking for cleaner alternatives (e.g. China aims to reduce coal consumption to less than 65% total energy usage by 2017)⁴. An independent third party economic impact assessment of the proposed Woodfibre LNG project is included in the Application. Accounting and Consulting firm MNP found the following economic benefits of the project (2014 CAD): CONSTRUCTION JOBS Create 650+ jobs each year of construction. Create an additional 1,080+ jobs (indirect* and induced** employment) during the construction phase of the Project. LONG-TERM OPERATION JOBS Create 100+ local jobs during operation. Treate an additional 330+ local jobs (indirect* and induced**) during operation. The direct impacts arise from shifts in spending on goods and services as a consequence of changes to the payroll of the directly and indirectly affected businesses. Accounting and Consulting firm MNP found the following economic benefits of the project (2014 CAD): \$83.7 MILLION: Estimated in tax revenue for all three levels of government per year of operation. <

BP Statistical Review of World Energy Report, June 2013. < http://www.bp.com/content/dam/bp/pdf/statistical-review/statistical_review_of_world_energy_2013.pdf>

EAO's Response

² ICIS. China Natural Gas Annual Report ICIS. China Natural Gas Annual Report http://www.icis.com/energy/channel-info-about/china-natural-gas-annual-report/

³ Wood Mackenzie. LNG Service Tools: Understanding the dynamics of the global LNG industry < http://public.woodmac.com/content/portal/energy/highlights/wk3_Nov_13/LNG%20Service%20and%20Tool.pdf>

⁴ National Development and Reform Commission. 2014. Social Development and National Economics Statistics Bulletin 2011 – 2013.

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	
208(ii)	February 19, 2015	Matt Blackman - Squamish, British Columbia	And if prices fail to recover to generate a profit for LNG investors after WLNG is built, who will be responsible for paying the dismantling and remediation costs for removing this expensive albeit unprofitable facility and supporting structures?	Decommissioning	As LNG Projects involve significant capital investment which is recovered over a long period of time, final investment decisions (FIDs) on LNG projects are not made lightly, nor are they based of the price of oil or gas on any given day, or even a given year. Rate FIDs are made based on long-term forecasts and take into account numerous factors, many of which are specific to the project or the proponent(s). Woodfibre LNG is licenced to export about 2.1 million tonnes of LI per year for 25 years, and is responsible for decommissioning the facility. Section 2.2.7.3 of the Application identifies decommission activities associated with the Project. Under Section 21 of the Liquefied Natural Gas Facility Regulation Woodfibre LNG Limited must complete site restoration on the permitted LNG facility site, which includes removing all facility structures.	
209	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	Due to the presumed adverse effects on marine life and ecology of the Sound resulting from Woodfibre LNG's SOx, NOx and CO2 emissions, what studies have the proponent conducted examining the effects of ocean acidification/ acid rain and the differential effects on various species of commercial and forage fish stocks, whether resident in/ migrating through the Sound? The projected effects on shellfish should also be documented. In addition to the proponents examination of these issues, independent examination should also be conducted.	GHG Emissions	Thank you for your comments. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. In fact, replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year, equates to taking 557,000 cars off the roads over the same time period ⁵ . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment.	

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⁵ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response		
210	February 19, 2015	Mike Bothma - West Vancouver, British Columbia	I have no desire to live in an industrial park. We moved to the area specifically because of the lifestyle, LNG will massively effect the liveability of the area. No LNG	LNG Project	Thank you for your comment. Woodfibre LNG Limited is of the view that the Woodfibre site is the right fit for an LNG facility. It features: zoned industrial, more than 100 years of industrial use, deepwater port, access to established shipping routes, access to FortisBC pipeline, access to BC Hydro transmission grid, and access to labour force. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. The potential effects of the Project on the public is assessed in Section 9.2 Public Health, and includes an assessment on community health and well-being (for example, population and demographics, education and training, alcohol and drug abuse and crime) and a human health risk assessment for Project-related emissions. The assessments concluded that there were no Project- related significant adverse effects to public health.		
211(i)	February 20, 2015	Vel Anderson - Gibsons, British Columbia	If this LNG business is so great, why are these elected officials saying this is not the best fit for Howe Sound area? In total they represent over 145,000 residents. (this figure excludes Islands Trust, Galiano Parks & Recreational Commission, and UBCM in the following list) Village of Lions Bay Powell River Regional District Town of Gibsons District of West Vancouver Bowen Island Municipality Islands Trust Galiano Parks & Recreational Commission Sunshine Coast Regional District District of Squamishno to boreholes permit Union British Columbia Municipalities (UBCM) These elected officials recognize that our environment would be negatively affected, the tourism and economy of the region would suffer, the safety and security of the region could be compromised, our marine highway (BC Ferries) schedule will be disrupted. They recognize that beautiful Howe Sound is not the right place for a Liquid Natural Gas (LNG) terminal, and all the activity that comes with the business.	LNG Project Marine Transport Safety	Thank you for your comments. Woodfibre LNG Limited is of the view that the Woodfibre site is the right fit for an LNG facility. It features: zoned industrial, more than 100 years of industrial use, deepwater port, access to established shipping routes, access to FortisBC pipeline, access to BC Hydro transmission grid, and access to labour force. Woodfibre LNG Limited is also of the view that tourism and industry can work together to create responsible economic development in Squamish. BC Ferries and Squamish Terminals have shown how industry can successfully coexist with local tourism and recreation, and Woodfibre LNG Limited is working hard to follow that example. An assessment of the effect of the LNG carriers on other marine traffic is included in Section 7.3 Marine Transport of the Application. BC Ferries has not identified scheduling delays or interruptions as a potential effect. Woodfibre LNG Limited has committed to further consultation with BC Ferries and Squamish Terminals regarding potential interference, vessel routes and current operating practices. With this mitigation, and others in place, residual effects to marine transport, including ferries, are anticipated to be negligible. Please also refer to the Marine Transport and Public Safety information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.		

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response		
211(ii)	February 20, 2015	Vel Anderson - Gibsons, British Columbia	Woodfibre LNG plant in Howe Sound plans to spew some 17,000 tonnes (3.8 million gallons) of heated, chemical treated seawater, every hour of each day for 25 years, into the Sound. The plant is directly in the path of the recovering Cheakamus/ Squamish salmon run in Howe Sound. The potential for again destroying this run should be of great concern. Howe Sound is only now recovering from the marine dead-zone it became over the last century. What method is proposed to mitigate this environmental crisis?	Effects of the Project on Marine Life	 Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. All discharges to the marine environment will meet or exceed applicable legislation and guidelines, including the BC Water Quality Criteria (marine and estuarine life), the Canadian Environmental Quality Guidelines (water quality guidelines for the protection of aquatic life – marine), and the <i>Fisheries Act</i>. The seawater cooling system will require a waste discharge permit under section 14 of the <i>Environmental Management Act</i>. Woodfibre LNG Limited is legally required to comply with all requirements as outlined in the permit. The effects of the Project on marine water quality is assessed in Section 5.10 Marine Water Quality. Additional components of the marine environment that have been assessed include Freshwater Fish and Fish Habitat (Section 5.15), Marine Benthic Habitat (Section 5.16), Forage Fish and Other Fish (Marine) (Section 5.18) and Marine Mammals (Section 5.19). A summary of the residual and cumulative environments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project-related significant adverse residual effects to the environment. Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please also refer to the Seawater Cooling System and Marine Mammals information sheets that have been prepared as part of the Woodfibre LNG 		
211(iii)	February 20, 2015	Vel Anderson - Gibsons, British Columbia	What action will be taken by the Canadian Coast Guard should the LNG tankers, coming into our waters, not have the "recommended" safety and security measures?	LNG Carriers Safety	As per information received from the Canadian Coast Guard, a vessel not having the recommended safety and security measures will be prohibited from entering Canadian waters and could be detained offshore till these measures are rectified. Information relating to the Canadian Coastguard and their actions can be obtained through their website at www.ccg-gcc.gc.ca		

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
212	February 20, 2015	Personal Information Withheld - Squamish, British Columbia	David Suzuki's recently published study says it all. The EAO must look at this project MUCH more carefully. What are the genuine effects of this project on our economy and our environment? Water, air, wildlife, property, effects on local business? None of this has been addressed in any meaningful way. Please postpone or delay this project until we can clearly understand the true cost this. In Squamish we have elected an anti WFLNG Council. We are using our democracy to speak and the EAO has a duty to listen to us.	Environmental Assessment Process	 Thank you for your comment. Public participation in the Environmental Assessment (EA) process helps to ensure that community values and public goals for community development are considered in project planning and decision-making. The Project has been assessed according to the methodology of both the BC <i>Environmental</i> Assessment Act (2012). Section 4.0 Environmental Assessment Act (2012). Section 4.0 Environmental Assessment Act (2012). Section 5.0 Environmental Assessment Act (2012). Section 5.0 Environmental Assessment Act (2012). Section 5.0 Environmental Assessment Methods of the Application describes the assessment process. The potential effects of the Project on the environment are assessed in Section 5.10 Marine Water Quality. The assessments concluded that the Project will not result in substantial changes to these components of the environment. Air - effects of the Project on air is assessed in Section 5.2 Atmospheric Environment (Air Quality) and Section 5.3 Greenhouse Gas Emissions. The assessment of air quality indicated that prediced concentrations were below the federal and provincial standards and guidelines. And at peak capacity, the Project will have a greenhouse Gas Industrial Reporting and Control Act. Wildlife – valued components of the environment that were assessed in Cloce per tonne LNG in the Greenhouse Gas Industrial Reporting and Control Act. Wildlife – valued components of the environment that were assessed in Cloce to the Application: Section 6.0 of the Application: Section 6.12 Labour Market - the Project is expected to benefit local and regional labour markets throughout construction and operation by project on the local economy is assessed in Section 5.0 of the Application: Section 6.3 Sustainable Economy - the assessment concluded that some commercial marine traffic will likely be temporarily displaced while Project wessels pasts by. There will be increased economic activity related to Project-relat

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
213	February 20, 2015	Personal Information Withheld - Howe Sound, British Columbia	The amount of time that has been designated is completely inadequate to allow people to evaluate the projects: The FortisBC pipeline application is a hefty 1,613 pages with 2,010 pages of appendices at a grand total of 3,623 pages! The Woodfibre LNG application is 2,341 pages with 7,008 pages of appendices. That is a total of 9,349 pages! Combined, there is 12,972 pages of dense, highly technical reading. How is the general public expected to read and respond in a meaningful way to such a huge volume of information in their spare time over a 45-day period? Well, I am busy To the BC Environmental Assessment Office, I am writing to formally request extensions for the coinciding public comment periods for the two projects proposed in Squamish that are currently going through the BC Environmental Assessment process: • Woodfibre LNG Project • Eagle Mountain – Woodfibre Gas Pipeline Project These public comment periods are one of the only opportunities granted to the general public to have their comments considered as part of the Environmental Assessment process. Under any circumstances, participating in this kind of process is onerous within the standard 45 day time limit. This is even more difficult when the public comment periods for two proposed projects are occurring at the same time. How can the general public respond in a meaningful way in such a short timeframe? With a grand total of 12,972 pages of highly technical documents, how is asking the public to read 288 pages per day reasonable? Most importantly, with this huge volume of information and limited time to review and comment, does the EAO believe that it is compliant with the Federal Minister of Environment's substitution decision, which specifically states that a goal of this substituted process is to enable "meaningful participation" by the public? Thank you for considering this request to extend the public comment periods for these two proposed projects in Squamish.	Public Comment Period	Thank you for your comment. The Project has been assessed according to the methodology of both the BC <i>Environmental Assessment Act</i> and <i>Canadian</i> <i>Environmental Assessment Act</i> (2012). The assessment sections of the Application follow a structured methodology that identifies the rationale for selecting the valued component, describes the existing conditions, identifies the potential interactions with the Project, describes potential mitigation measures and identifies any residual effects that may remain after mitigation measures are implemented. Woodfibre LNG acknowledged concerns expressed about the public comment period and, at the request of Woodfibre LNG Limited, the EAO extended the public comment period from 46 days to 60 days, ending on March 23, 2015.

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For more information related to comments on the Environmental Assessment process please see "EAO Response to Public Comments – Application Review Public Comment Period for Woodfibre LNG, January 22 – March 23, 2015" under the Application Review EAO Generated Documents [Link].

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response		
214(i)	February 20, 2015	Personal Information Withheld - Howe Sound, British Columbia	 a) There is no emergency moorage for LNG tankers (about the size of aircraft carriers) planned, or required this should be required. So q: If an LNG tanker experiences difficulty while in Howe Sound, where will it tie up/moor? What happens if 2 LNG tankers end up in Howe Sound at one time? 	Emergency Moorage	Thank you for your questions. Due to lack of specific LNG anchorages within Canadian waters, LNG carriers will delay or defer their passage into Canadian waters if it is apparent their regular turnaround cannot be maintained, either due to weather or unplanned maintenance needs on the vessel or at the terminal. In case of an unplanned maintenance event at the terminal that cannot be resolved while the LNG carrier is at the berth, the LNG carrier would be evacuated from the berth and escorted out of Canadian waters until the terminal issue is resolved or rectified.		
214(ii)	February 20, 2015	Personal Information Withheld - Howe Sound, British Columbia	 b) The LNG tankers will have to load fuel for the trip across the ocean: diesel and thick tar-like bunker fuel. Where will they take on the fuel? Probably Howe Sound. This would mean a fuel barge going up Howe Sound every week. Opportunity for leaks, accidents, spills. So q: Where will the LNG tankers be loaded with diesel and bunker fuel? If in Howe Sound, how often will a barge of diesel/bunker fuel go up Howe Sound to Woodfibre LNG? What provisions will be made re leakages or spills of these fuels? 	Fuel Source for LNG Carriers	The LNG carriers that would travel to and from the Woodfibre LNG project will primarily use the boil off gas (methane) that they are transporting as fuel. In the unlikely event of a spill, LNG does not pollute water. It turns back into a gas and quickly dissipates. LNG carriers have robust containment systems and double hull protection, and they can carry bunker fuel as a back-up fuel. LNG carrier companies would be required to be members of Western Canada Marine Response Corporation (WCMRC), and WCMRC would be activated in the unlikely event bunker fuel from a carrier was spilled into the marine environment. Refuelling and bunkering for the LNG carriers will occur outside of Howe Sound, and will be the responsibility of the LNG carrier owners.		
214(iii)	February 20, 2015	Personal Information Withheld - Howe Sound, British Columbia	 c) Re the effects of the cooling system. WF doesn't initially mention animals being sucked into the cooling system in the text (pg 5.16-5). They do mention it in a table (pg 5.16-21). Later in the text pg 5.16-26), they say everything that gets sucked into the cooling system will die. On pg 5.16-27 they say floating larvae and all stages of bottom dwelling invertebrates (animals without a backbone) will probably be killed. On pg 5.16-29 they say mitigation and environmental design features will reduce killing larvae and small fish and invertebrates, BUT they don't say what these mitigation etc methods are. Referencing no literature, they say it probably won't make a difference. So Q: What mitigation measures are planned for reducing the death of plankton, larvae of all intertidal animals (the bottom of the food chain), small fish, and crustaceans? In the EA, mitigation and environmental design features are suggested, but are not described. 	Seawater Cooling System	 The Project is being assessed according to the methodology of both the BC Environmental Assessment Act and Canadian Environmental Assessment Act (2012). The assessment sections of the Application follow a structured methodology that identifies the rationale for selecting the valued component, describes the existing conditions, identifies the potential interactions with the Project, describes potential mitigation measures and identifies any residual effects that may remain after mitigation measures are implemented. The references in the comment are from Section 5.16 Marine Benthic Habitat. The different sections of the Application referenced in the comment include Section 5.16.1 Marine Benthic Habitat Scoping and Rationale, Section 5.16.3.2.3 Potential Effects for Marine Benthic Communities and Section 5.16.3.2.4 Proposed Measures to Mitigation Project-related Effects. In order to understand the assessment methodology process, it is best to review the context of the statements referenced in the comment: The text on page 5.16-26 is as follows "Without mitigation measures to minimize the effects of impingement and entrainment, adverse effects on marine benthic habitat will occur. Mortality rates due to impingement and entrainment vary by species and are difficult to quantify. For the purposes of this assessment of the effect on marine benthic habitat, conducted in the absence of mitigation measures. The text on page 5.16-27 is a review of available information that supports this statement on page 5.16-26: "The magnitude of the effect of mortality due to impingement and entrainment depends on a number of key factors: flow-through velocity of the intake 		

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					 proximity of the intake to spawning grounds and other sensitive habitat
					 distance between the intake and the seafloor
					 screen size of the intake
					 antifouling properties of the intake screen
					 abundance and life history of benthic invertebrate adults and larvae in the vicinity of the intake"
					• Following the review of information that identifies the potential factors that influence the effect of mortality on marine benthic communities due to impingement and entrainment, the environmental design features that will be implemented to reduce entrainment and impingement are then listed on page 5.16-29: "The following design measures are recommended to mitigate effects associated with entrainment or impingement:
					 The intake will be located in deep water (greater than 25-m depth), below the photic zone; consequently, effects to marine vegetation (macroalgae) are not likely.
					 The intake will be located 2 m above the seafloor to reduce the potential for entrainment or impingement of benthic fauna.
					 The intake will contain a screen with mesh size no larger than 4.75 mm to prevent entrainment of adult and juvenile benthic invertebrates.
					 The intake will contain a maximum approaching velocity of 3.0 cm/s for a stationary screen or 12.0 cm/s for a self- cleaning screen.
					 The intake screen will contain a minimum of 50% open screen area as a percentage of the total screen area to maintain average through-screen velocity."
					The intake will be sited away from subtidal rock reefs containing significant abundances of macrophytes that provide nursery habitat for juvenile fish and benthic invertebrates. Entrainment of plankton and larvae will potentially occur as a result of the water intake demands for the LNG cooling process. The implementation of mitigation and environmental design features will further reduce entrainment and impingement associated with the intake. As a result, measurable changes in the distribution of native marine species relative to baseline conditions are not likely."
					Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please also refer to the Seawater Cooling System information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.

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214(iv)	February 20, 2015	Personal Information Withheld - Howe Sound, British Columbia	Q: In the EA, Woodfibre recognizes that the cooling system as it stands will probably kill plankton and larvae. Mitigation methods are suggested but not described. Then on pg 5.16-29: "As a result, measureable changes in the distribution of native marine species relative to baseline conditions are not likely." Could you/Woodfibre please provide a reference to back up this conclusion?	Seawater Cooling System	 The entire statement referred to is as follows: "The intake will be sited away from subtidal rock reefs containing significant abundances of macrophytes that provide nursery habitat for juvenile fish and benthic invertebrates. Entrainment of plankton and larvae will potentially occur as a result of the water intake demands for the LNG cooling process. The implementation of mitigation and environmental design features will further reduce entrainment and impingement associated with the intake. As a result, measurable changes in the distribution of native marine species relative to baseline conditions are not likely." The environmental design features that will be implemented to reduce entrainment and impingement are listed in the paragraph above: "The following design measures are recommended to mitigate effects associated with entrainment or impingement: The intake will be located in deep water (greater than 25-m depth), below the photic zone; consequently, effects to marine vegetation (macroalgae) are not likely. The intake will be located 2 m above the seafloor to reduce the potential for entrainment or impingement of benthic fauna. The intake will contain a screen with mesh size no larger than 4.75 mm to prevent entrainment of adult and juvenile benthic invertebrates. The intake will contain a maximum approaching velocity of 3.0 cm/s for a stationary screen or 12.0 cm/s for a self-cleaning screen. The intake screen will contain a minimum of 50% open screen area as a percentage of the total screen area to maintain average through-screen velocity."
215	February 20, 2015	Personal Information Withheld - Squamish, British Columbia	Thank your for investing in Squamish's future and ensuring this project meets and exceeds all requirements. This project is most definitely wanted and needed in Squamish!	LNG Project	Thank you, this comment is noted.

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216(i)	February 20, 2015	Matt Blackman - Squamish, British Columbia	1) Jobs On the topic of jobs, clearly the government displays a lack of concern about who exactly will get the LNG jobs, projected to be few hundred during construction and then about 100 to run and maintain Woodfibre LNG if and when it becomes operational, given the all-too-willing tendency on the part of government in both the past and present to give jobs away to foreign workers as evidenced by the BC-China Temporary Worker Agreement inked in 2014. What assurances do we have that BC residents will get the majority of jobs at Woodfibre LNG?	Economic Benefits of the Project	 Thank you for your comments. Woodfibre LNG will develop a Local Hiring Strategy, a Local Training Strategy and Local and Regional Procurement Strategy in order to ensure that the local workforce and economy can realize (to the maximum extent possible) the potential economic benefits of the Project. These strategies will ensure that the labour force is well-positioned to seek Project employment based on individual capacities to supply needed skills; maximize employment opportunities for residents in Squamish, Whistler and Metro Vancouver; and ensure that local and regional businesses can access the benefits of increased demand for goods and services from the Project. An independent third party economic impact assessment of the proposed Woodfibre LNG project is included in the Application. Accounting and Consulting firm MNP found the following economic benefits of the project (2014 CAD): CONSTRUCTION JOBS Create an additional 1,080+ jobs (indirect* and induced** employment) during the construction phase of the Project. LONG-TERM OPERATION JOBS Create an additional 330+ local jobs (indirect* and induced**) during operation. *Indirect impacts arise from changes in activity for suppliers. **Induced impacts arise from shifts in spending on goods and services as a consequence of changes to the payroll of the directly and indirectly affected businesses. Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.

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216(ii)	February 20, 2015	Matt Blackman - Squamish, British Columbia	2) The environment - What steps will this government take to insure that another Mount Polley mine disaster does not occur. If LNG is such a clean industry, why have the BC Liberal's repealed the Cap and Trade Act, which was part of the government's Climate Action Plan rolled out six years ago? The government claims that LNG is clean. However, even under a best case scenario, LNG produces 3 tons of CO2 for every ton of LNG that is used for fuel when emissions from well-head to end use by the customer are counted. Is this government taking any action to insure that Woodfibre LNG will employ a viable carbon capture and sequestration program to mitigate the more than 80,000 tons the facility will produce every year?	Regulatory Requirements GHG Emissions Climate Change	Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and Gas Activities Act and the associated Liquefied Natural Gas Facility Regulation, national and BC building codes, as well as national and international standards, guidelines and codes of practice where there are no applicable codes for BC. The Project will also require a Facility Permit from the Oil and Gas Commission as well as numerous other environmental permits. The construction and operation of the Project will be regulated by the Oil and Gas Commission as well as numerous other environmental permits. The construction and operation of the Project will be regulated by the Oil and Gas Commission and the BC Safety Authority and Woodfibre LNG Limited anticipates that the appropriate government agencies will inspect the facility as required. Should an Environmental Assessment Certificate be granted for the Project, a Table of Conditions will be developed that outlines all of the requirements with which the Project will have to comply. Woodfibre LNG Limited will be legally responsible for ensuring all conditions are met. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from highemission fuels such as oil and coal. This is particularly true in energy-hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ⁶ . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project-generated greenhouse gas emissions. The relatively minor increase in global emission associated with the Project would cor
216(iii)	February 20, 2015	Matt Blackman - Squamish, British Columbia	3) Energy project history - I have not forgotten the last time our province delved into an energy market with both feet in the hopes of generating jobs and prosperity. In the 1970s, Premier Bill Bennett saw a chance to open up part of northeastern British Columbia to economic development to supply coal to Japan's steel industry in the 1970s according to a February 14, 2000 article entitled Northeast Coal Never Fulfilled Its Promise. The province funded construction of a \$400 million rail line to Prince Rupert as well as other infrastructure, road and hydro projects for the new town of Tumbler Ridge BC. The federal government helped build the coal terminal at Prince Rupert. The total bill to taxpayers came to about \$1.6 billion [more than \$16 billion in	Industrial Legacy	As LNG Projects involve significant capital investment which is recovered over a long period of time, final investment decisions (FIDs) on LNG projects are not made lightly, nor are they based on the price of oil or gas on any given day, or even a given year. Rather, FIDs are made based on long-term forecasts and take into account numerous factors, many of which are specific to the project or the proponent(s). Current forecasts are that the global demand for energy will increase by 35% by 2035, and the specific demand for natural gas is expected to increase by 55% ⁷ . The increasing standards of living and rapid economic growth in Asia (6-8% GDP growth annually) are the key triggers for the increase in demand ⁸ . China's energy demand increases by 5% annually ⁹ . Not only is Asia seeking new sources of energy to meet needs (diversify),

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Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf. BP Statistical Review of World Energy Report, June 2013. < http://www.bp.com/content/dam/bp/pdf/statistical-review/statistical_review_of_world_energy_2013.pdf> ICIS. China Natural Gas Annual Report <http://www.icis.com/energy/channel-info-about/china-natural-gas-annual-report/> 7

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Wood Mackenzie. LNG Service Tools: Understanding the dynamics of the global LNG industry < http://public.woodmac.com/content/portal/energy/highlights/wk3_Nov_13/LNG%20Service%20and%20Tool.pdf> 9

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			today's dollars]. These expenditures were to be guaranteed by 15-year supply contracts with the mines' Japanese customers at well above the market price. But before the first Japanese ore freighter even loaded i ts first shipment at the Ridley Island terminal in January 1984, the steelmakers began demanding cuts in volume and price. The predicted non-stop rise in oil, gas and coal prices never happened. Japan's steelmakers faced new competition from places like India and South Korea, which offered cheaper coal. Tumbler Ridge now has 70% unemployment and the majority of the mining jobs went to Chinese workers thanks to the temporary workers program supported in the courts and with legislation by both the BC and federal governments. Thirty years later coal demand has fallen dramatically and along with it the price. The billions of tax dollars that were spent turned into a taxpayer boondoggle. What backup plan do the BC Liberals have to prevent a similar fate befalling workers and taxpayers in BC once again? Not much if the temporary workers agreement between BC and China inked last year, the tax and environmental concessions provide by government combined with lack of any public backup plans are any indication. So what steps are being taken to guard against a similar fiasco playing out in Squamish? What happens if the LNG market proves to be unprofitable as a number of experts have projected and these expensive facilities must be dismantled? From an economic and taxpayer risk stand point, an LNG industry is a decidedly bad idea that could leave the residents of BC exposed to huge risks that they will be forced to shoulder if rosy industry projections fail to materialize. And what are the potential rewards? At best a few hundred construction jobs and far fewer permanent jobs based on rosy projections, some of which may in fact go to long-term BC workers but there are no guarantees. From a business standpoint, this looks like a great deal Singaporean investor Sukanto Tanoto but a		Asia is looking for cleaner alternatives (e.g. China aims to reduce coal consumption to less than 65% total energy usage by 2017) ¹⁰ . Woodfibre LNG Limited is a private company and receives no public funding.

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¹⁰ National Development and Reform Commission. 2014. Social Development and National Economics Statistics Bulletin 2011 – 2013.

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217	February 20, 2015 Gillian Smith - Lions Bay, British Columbia	I am in favour of what seems to be widely accepted lately as the new definition of "community". In the past, community was considered to be a group of people, or groups of people sharing the same place or the same philosophy. While this definition of community is still generally accepted, the new version of community is defined as something different. The new understanding of community includes the animals, the soil and the plants that reside in the same space as the people there. In the community of Howe Sound, there exists people, and southern coastal grizzly bear, elk, cougar, black bear, gray whale, orcas, dolphins, herring, indigenous plants - both land and sea - and so on. The larger the animal species, the more challenging it is to thrive and coincide with humans. For example, the Southern Coastal Grizzly Bear, a subspecies of endangered Grizzly Bear found only on the southern coast of British Columbia, needs 250 square kilometers with little or no human intervention to survive. Elk require vast areas to graze and roam. Gray whales and orcas need extensive stretches of coastline to hunt, mate, migrate and rest. To what extent has your proposal taken into consideration the varied, broad and abundant needs of the vast array of life in Howe Sound? And how will this vast array of community in Howe Sound be compromised or lost by your proposed LNG project?	Effects of the Project on the Environment	Thank you for your comment. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. As part of the environmental assessment process, valued components (VCs) of the environment are selected for study which services to focus and facilitate the analysis, " <i>Environmental</i> assessment in <i>BC uses</i> a values-based framework to promote a comprehensive, yet focused, understandable, and accessible assessment of the potential effects of proposed Projects. This framework relies on the use of Valued Components (VCs) as a foundation for the assessment. The Guideline defines and explains the use of VCs to focus environmental assessments on those aspects of the natural and human environment that are of greatest importance to society. The Guideline also explains how the use of VCs improves the effectiveness and efficiency of assessment, in part by facilitating the selection of appropriate study methods and focusing analysis on key project-VC interactions." ¹¹ An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine mammals is included in the Application (Section 5.19). The assessment indicated that noise from pile driving (during construction) and vessel traffic may cause a short-terrn change in behaviour of marine mammals due to underwater noise. Woodfibre LNG Limited wil

¹¹ Environmental Assessment Office. 2013. Guideline for the Selection of Valued Components and Assessment of Potential Effects. Available at: http://www.eao.gov.bc.ca/pdf/EAO_Valued_Components_Guideline_2013_09_09.pdf

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					grizzly bear was excluded as a valued component. Mitigation measures for black bear (perimeter fencing and management of wildlife-human conflict), combined with the low anticipated potential for grizzly bear to occur in the Project area, provided sufficient rationale for not including grizzly bear as a valued component for the Project. The potential for grizzly bear populations to experience long- term Project-related effects is considered negligible.
					Ungulates, including Roosevelt Elk, are not included as a valued component for the Project. The potential for ungulate populations to experience long-term Project-related effects is considered negligible. Because the Project would be on a brownfield site, and current site conditions offer low habitat value, it is expected that ungulates will not be affected by Project development. Mitigation measures such as perimeter fencing will further reduce the potential for ungulate populations to be adversely affected by the Project. Please also refer to the Wildlife and Marine Mammal information
					sheets that have been prepare as part of the Woodfibre LNG Limited response to public comments.
					Thank you for your comments. Woodfibre LNG Limited intends to operate in a manner consistent with its core values of a triple bottom line approach, where results benefit the community, the country and the company.
			An independent third party economic impact a Project is included in the Application. Accoun MNP projected the following economic benefit CAD):	An independent third party economic impact assessment of the Project is included in the Application. Accounting and Consulting firm MNP projected the following economic benefits of the Project (2014 CAD):	
					CONSTRUCTION JOBS
					Create 650+ jobs each year of construction.
					Create an additional 1,080+ jobs (indirect* and induced** employment) during the construction phase of the Project.
			I am absolutely against it. For many reasons; here		LONG-TERM OPERATION JOBS
			are just some of them:		Create 100+ local jobs during operation.
		Eva Sadowski far was talking about 100 jobs (including management and highly specialized positions Far was talking about 100 jobs (including management and highly specialized positions	Create an additional 330+ local jobs (indirect* and induced**) during operation.		
218(i)	February 20, 2015	- Squamish,	which will not come form Squamish for	Economic Benefits of	*Indirect impacts arise from changes in activity for suppliers.
		Columbia	sure). So, if we are lucky, we may get 50-60 positions. I am afraid we will lose many more	the Project **Induced services a and indire	services as a consequence of changes to the payroll of the directly and indirectly affected businesses.
			to Squamish. Nobody wants to watch tankers, flare, and dead waters!		Woodfibre LNG Limited is of the view that tourism and industry can work together to create responsible economic development in Squamish. BC Ferries and Squamish Terminals have shown how industry can successfully coexist with local tourism and recreation, and Woodfibre LNG Limited is working hard to follow that example.
					An assessment of the potential effects of the Project on tourism is included in Section 6.2 Labour Market and Section 6.3 Sustainable Economy. The Application concluded that there were no Project- related significant adverse residual effects to the economy.
					The Application assesses the potential effects of the Project to outdoor recreation in Section 7.4 Land and Resource Use. With the proposed mitigation, it is not likely that there will be significant residual effects to outdoor recreation.
					An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be

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					avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. The Application concluded that, with mitigation measures in place, there were no Project-related significant adverse residual effects to the environment. Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
218(ii)	February 20, 2015	Eva Sadowski - Squamish, British Columbia	2. huge financial benefits for Squamish? Here they are: Stephen Harper just announced tax breaks for LNG industry: "The break will save the industry a total of about \$50 million over five years starting in 2015-16, but savings are expected to increase in later years if the industry grows as expected, said a federal government spokesperson. Last year, B.C. also cut a planned income tax on LNG plants in half to 3.5 per cent." Whoever is going to benefit, it's not Squamish for sure.	Economic Benefits of the Project	 Woodfibre LNG Limited took ownership of the Woodfibre site in February 2015 and is already contributing to the District of Squamish's tax revenue. Woodfibre LNG is expected to pay an estimated \$2 million (+) per year during operation, should the project go ahead. The Environmental Assessment Certificate application includes information on the economic benefits of the Woodfibre LNG project, should it go ahead. \$83.7 MILLION: Estimated in tax revenue for all three levels of government during the construction phase of the Project. \$86.5 MILLION: Estimated in tax revenue for all three levels of government per year of operation. \$243.3 MILLION: Estimated to the District of Squamish, Resort Municipality of Whistler, Electoral Area D of Squamish-Lillooet Regional District, Squamish First Nation communities, and Metro Vancouver gross domestic product (GDP) during construction and more than \$122.8 MILLION in GDP per year during operation. For more information see Section 2.6 Project Benefits of Woodfibre LNG's Environmental Assessment Certificate Application. Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
218(iii)	February 20, 2015	Eva Sadowski - Squamish, British Columbia	 environmental concerns: too much to write. The site does great job in listing them; just look. 	Effects of the Project on the Environment	An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. The Application concluded that, with mitigation measures in place, there were no Project-related significant adverse residual effects to the environment.

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218(iv)	February 20, 2015	Eva Sadowski - Squamish, British Columbia	 health issues related to fracking: again, tons of it on the site. If you do not want to read them all, check only this one: dangersoffracking.com 	Hydraulic Fracturing	 Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Like other customers along the pipeline route, Woodfibre LNG will buy its feed gas from third party suppliers, potentially including aggregators. This natural gas will be delivered in a co-mingled stream through the Fortis BC pipeline to the site. Natural gas liquefied in the Woodfibre LNG facilities will be produced and processed primarily in the northeastern region of BC, but may also originate from other wells connected to the Western Canadian Gas Transmission System. The Oil & Gas Commission (OGC) regulates these extraction activities under the Oil & Gas Activities Act and related regulations.
218(v)	February 20, 2015	Eva Sadowski - Squamish, British Columbia	 5. can we trust Chinese company to take good care of our land and waters? So far their environmental records are not that great. Why would they change? We live in paradise. Why transform it into a piece of hell? 	Corporate Ownership	The Woodfibre LNG Project is owned by Woodfibre LNG Limited, a privately held Canadian company based in Vancouver with a Community Office in Squamish. Woodfibre LNG Limited is a subsidiary of Pacific Oil and Gas (PO&G) which develops, builds, owns and operates projects throughout the energy supply chain. Woodfibre LNG Limited intends to operate in a manner consistent with its core values of a triple bottom line approach, where results benefit the community, the country and the company. Woodfibre LNG will comply with all applicable regional, provincial and federal laws, regulations, guidelines and standards including but not limited to: employment standards; health and environmental regulations and standards; taxation; and, First Nations agreements.

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219(i)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	THE ENVIRONMENT The environment of Howe Sound is a shining success story – that is so far. Since the closures of Britannia Mine (1904-1974) and Woodfibre Pulp Mill (1912-2006), a massive and expensive clean-up of the Sound has resulted in the return of spawning herring with salmon appearing in Britannia Creek for the first time in 100 years. A large pod of Pacific white-sided dolphins has recently become established in Howe Sound and is listed as a "re-located pod". Orcas and other whales have also become an exciting part of this re- birthing of the Howe Sound environment. On the floor of the Sound, 8000 year old glass sponge reefs have been discovered. These rare and fragile sponges provide critical habitat for severely reduced rockfish stocks.	Recovery of Howe Sound	Thank you for your comments. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community, and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. Woodfibre LNG Limited is of the view that the Woodfibre site is the right fit for an LNG facility. It features: zoned industrial, more than 100 years of industrial use, deepwater port, access to established shipping routes, access to FortisBC pipeline, access to BC Hydro transmission grid, and access to labour force. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects of the Project on marine mammals is included in Section 5.19 Marine Mammals, and includes an assessment of the optential effects of the Project on marine mammals is included in Section 5.19 Marine Mammals, and includes an assessment of the effects of noise. The Application concluded that there is the potential to marine mammals to experience short- term behavioural disturbances from construction activity (pile driving) and vessel traffic. Woodfibre LNG Limited will retain a contractor to perform underwater acoustic monitoring for pre, during and post Project construction. The underwater monitoring will collect underwater sound levels and marine mammal presence (e.g., of those species present,

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219(ii)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	All of this could be damaged or even destroyed by the LNG plant which is proposed for the Woodfibre Site. During the Olympic Games, when security staff were housed on a cruise ship moored in the Squamish area, herring failed to spawn, due to the ship's engines. If enormous LNG tankers are allowed in Howe Sound for 40 or so times a year, it could be the end of this recovering marine eco- system. When huge quantities of ballast water might also be discharged from the LNG carrier on arriving in Howe Sound, invasive marine organisms and unknown pollutants would be transferred to the enclosed waters of the Sound, with catastrophic results for our local marine environment.	Effects of the Project on the Environment Ballast Water	The goal of Woodfibre LNG Limited is to develop a project that provides sustained economic growth while continuing to support the work that has been done to improve Howe Sound. The Woodfibre site has been used for industrial purposes for 100 years and continues to be zoned for this use. Woodfibre LNG's purchase of the property was contingent on its former owner, Western Forest Products (WFP), obtaining a Certificate of Compliance (COC) from the BC Ministry of Environment (MOE). On December 22, 2014, the MOE issued two COCs for the Woodfibre property. The COCs confirm that WFP has cleaned up the site to acceptable contaminant levels and existing site contamination does not pose an ecological or human health risk. These COCs include conditions related to monitoring and management of residual contamination, and reporting requirements that must be undertaken by a BC MOE Approved Professional. Woodfibre LNG Limited intends to perform additional remediation and ecosystem restoration in the Project area once the property sale is complete. Plans for additional remediation include the removal of approximately 3000 existing creosote-coated piles from the waterfront in the Project area, the creation of a Green Zone around Mill Creek, and the containment and closure of the on-site landfill. This work will be carried out in partnership with the local Streamkeepers Society and other relevant groups, where suitable so that local conservation and restoration targets can be met (please refer to Section 2.6.7 Ecological Benefits of the Application). LNG carriers must comply with the Canada Shipping Act 2011, Ballast Water Control and Management Regulations. The regulations state that ballast taken onboard a vessel outside of waters under Canadian jurisdiction. In addition, all LNG carriers will comply with the International Maritime Organization (IMO) Regulations, MARPOL Annex IV (Prevention of Pollution by Garbage from Ships). The LNG carriers will carry an International Sewage Pollution Prevention Certificate and Garbage Manag

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219(iii)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	The proponent states in its documents that its operation would be cooled by sea water taken from the Sound, chlorinated and then discharged into the sea. It is obvious that this hot, chlorinated water is going to be detrimental to herring and other creatures. What other pollutants will this water pick up in the plant and discharge into the sea?	Seawater Cooling System	All discharges to the marine environment will meet or exceed applicable legislation and guidelines, including the BC Water Quality Criteria (marine and estuarine life), the Canadian Environmental Quality Guidelines (water quality guidelines for the protection of aquatic life – marine), and the Fisheries Act. The seawater cooling system will require a waste discharge permit under section 14 of the <i>Environmental Management Act.</i> Woodfibre LNG Limited is legally required to comply with all requirements as outlined in the permit. The seawater cooling system will be designed to meet BC water quality guidelines. The release temperature of the seawater will be less than 21°C or 10°C above ambient water temperature of Howe Sound, whichever is less. Near-field simulation modeling shows that, with a release temperature of 10°C greater than the ambient temperature, the total volume of water that would have a temperature greater than 1°C above ambient is 125 m ³ (for context, this volume is approximately 5% or 1/20 th of an Olympic-size pool). This volume will not increase over time Residual levels of chlorine at the discharge ports will be less than 0.02 mg/L. This is much less than the chlorine in drinking water, which is approximately 0.04 mg/L to 2.0 mg/L. Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please also refer to the Seawater Cooling System Information Sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
219(iv)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	It also states that CO2 and water vapour will be vented off into our local air shed. This could presumably involve flare stacks running around the clock. Such a situation at an LNG plant in Saint John, NB caused a massive kill of migrating birds attracted to the light of the flames. Flaring of carbon elements is also going to contribute to climate change and add to BC's legal carbon problem. As the water vapour is mostly from fracked operations, it will probably contain toxic and/or maybe radio- active materials from the extraction process. Is the government willing to allow the air around Howe Sound to be polluted in this way?	Flaring and Venting	The natural gas (the FEED gas) that will be delivered to the Woodfibre site for liquefaction has already undergone pre-treatment and is the same gas that is distributed to all customers along the Fortis system, including customers in Metro Vancouver, Squamish, Whistler, Sunshine Coast and Vancouver Island. Woodfibre LNG will undertake further processing at the site to remove additional components that affect the liquefaction process. A sour gas removal unit will be used to remove hydrogen sulphide, other sulphur components, and carbon dioxide from the FEED gas. Sour gas is sent to the thermal oxidizer where it is incinerated before being released to atmosphere. Small amounts of mercury are also removed from the FEED gas and stored in a sealed containment before being transported offsite to a licensed disposal facility. Similarly, any heavy hydrocarbons removed during the liquefaction process are stored as condensates in a bunded container. Condensates will also be transported off site to an appropriate facility as required. The flare will be burning less than 3% of the time: at start-up, during maintenance and in the event of an emergency. As part of Woodfibre LNG's Environmental Assessment Certificate Application, air dispersion modelling based on planned activities and equipment use — including marine vessels and flaring — were undertaken to predict air emissions from the Project operation phase. The results of the dispersion modelling were compared against federal and provincial ambient air quality criteria. All predicted concentrations were below the air quality criteria. All predicted concentrations were below the EAO on March 20, 2015. Given the anticipated infrequent occurrence and short duration (outside of start-up and commissioning) of anticipated flaring events, and the low likelihood of emergency flare events occurring under a combination of conditions

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					(i.e., during nighttime hours, within a migratory period under foggy or precipitation conditions) that could increase the potential for a large mortality event, effects to birds are anticipated to be minor.
219(v)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	Shale gas/ LNG is an inherently dangerous substance. Even with the best of intentions, spills and leaks can occur and catastrophic explosions can happen. It is impossible to see why the government would place us and our only environment in such danger simply to supply a foreign market and for short-term profits for someone.	Safety	At Woodfibre LNG, safety is the number one priority. Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and Gas Activities Act and the associated Liquefied Natural Gas Facility Regulation, national and BC building codes, as well as national and international standards, guidelines and codes of practice where there are no applicable codes for BC. The Accidents and Malfunctions section (Section 11.0) of the Application assessed the consequence and frequency of effects resulting from credible worst case scenarios for the Project. It showed that potential risks to the public were within the tolerable risk criteria regulated by the BC Oil and Gas Commission (OGC). The OGC will include a review of the quantitative risk assessment for this Project in the permit application review to confirm that the study and results meet the regulated requirements. Additional information on accidents and malfunctions was provided to the EAO on April 29, 2015. During operation, major accidents at LNG facilities are very rare. LNG is not explosive in an unconfined environment. Two fire / vapour cloud explosions at LNG facilities are known to have occurred in the past 60 years. A vapour cloud and fire in Ohio occurred in 1944 because of leaks from an LNG tank constructed from inappropriate material, and in 2004 an explosion occurred in Algeria because of a steam boiler problem (boilers are not part of the Project design). Standards for modern LNG facilities have benefited from the lessons learned from these accidents. Please also refer to Public Safety information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.

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219(vi)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	The gas which would be supplied along a new 60 cm diameter pipeline through Squamish is, of course, the key element in this whole proposal. Approximately 90% of the gas supplied to Woodfibre would be produced by fracking, a process which inflicts horrendous damage to the environment, drinking water, air quality and the health and well-being of people who live in the gas well areas. These people include many of our First Nations. Well bores which penetrate aquifers, toxic ponds which are also inflammable, methane-impregnated air and the enormous consumption and waste of clean water are only some of the problems with this gas. Lakes and rivers which formerly supported fish are being drained for fracking use. Drinking water is becoming contaminated and some people are forced to drink only bottled water. Hunted meat, a staple food for First Nations there, is inedible and contaminated with cancerous lesions, caused by the animals consuming poisoned water and plants. Methane from natural gas does leak into the air at well sites and processing plants such as the proposed one at the Woodfibre site. Methane is three times more potent than CO2 in its contribution to climate change. Fracking uses benzene and other toxic chemicals, claimed to be "industry secrets". A survey of New York State fracking listed 257 additives, some of which are carcinogenic. The industry must be made to come clean on what exactly is being injected into the ground and water table of our province. Radio-active material is used for tracing well bores; also existing radio-active material is released by the fracking process.	Hydraulic Fracturing	Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Like other customers along the pipeline route, Woodfibre LNG will buy its feed gas from third party suppliers, potentially including aggregators. This natural gas will be delivered in a co-mingled stream through the Fortis BC pipeline to the site. Natural gas liquefied in the Woodfibre LNG facilities will be produced and processed primarily in the northeastern region of BC, but may also originate from other wells connected to the Western Canadian Gas Transmission System. The Oil & Gas Commission (OGC) regulates these extraction activities under the Oil & Gas Activities Act and related regulations.
219(vii)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	The LNG from Howe Sound will be burned into the atmosphere in Asia. This is after transporting the gas huge distances, burning fuel in the tankers. It would be better for our planet if that gas were left in the ground here and Asia stuck to hydro or nuclear electricity and solar power, wind power, tidal electricity or even their own coal. Combined extraction and processing of fracked gas is worse for climate change than conventional gas, oil or even coal and so this gas is probably the dirtiest fuel available.	Climate Change	Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ¹² . A literature review of key studies of comparing emissions from natural gas and coal can be found here: http://www.capp.ca/getdoc.aspx?DocId=215278&DT=NTV Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.

¹² Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.

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219(viii)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	THE ECONOMY By 2015, post-industrial Howe Sound has welcomed a massive increase of tourism, recreation, universities and technical businesses. Local areas are already seeing 22% of all tourist dollars in BC being spent in the Sea-to-sky "corridor". Diving, hiking, skiing, boating, kayaking, river rafting, kite- boarding, fishing and many more outdoor activities abound. The Rocky Mountaineer tourist train with its observation cars passes twice daily along the Sound in the summer season. Last year a magnificent gondola and restaurant was opened near beautiful Shannon Falls. Quest University, Capilano University and Douglas College all have new campuses at Squamish. The Sea-to-sky/Howe Sound area is prospering, with every prospect of growing employment and population. What is needed now is a carefully considered development plan for the whole of Howe Sound, supported by all of its communities. Instead, a dangerous, polluting LNG industry is proposed to be dumped right in the middle of all this splendour, complete with a hazardous shipping component. This threatens all of this progress. It is truly madness.	Effects of the Project on the Economy	 Woodfibre LNG Limited is of the view that tourism and industry can work together to create responsible economic development in Squamish. BC Ferries and Squamish Terminals have shown how industry can successfully coexist with local tourism and recreation, and Woodfibre LNG Limited is working hard to follow that example. An assessment of the potential effects of the Project on tourism is included in Section 6.2 Labour Market and Section 6.3 Sustainable Economy. The Application concluded that there were no Project-related significant adverse residual effects to the economy. The Project's visual effects are expected to be minor given their scale and the historical and current level of human-related disturbance within the Regional Assessment Area. Mitigation measures have been developed to avoid, minimize, restore onsite or offset the potential adverse effects of the Project. Mitigation measures that would be implemented to reduce the visibility of the facility would include the following: reducing the level of contrast of buildings by using external surface finishing that has low glare and natural colours monitoring and maintaining natural screening to ensure minima visibility of infrastructure providing additional screening of land-based infrastructure through temporary or permanent plantings where possible and safe to do so For more information, please see Section 7.5 Visual Quality of the Application, which includes an assessment of the Project to outdoor recreation in Section 7.4 Land and Resource Use. With the proposed mitigation, it is not likely that there will be significant residual effects to outdoor recreation. Please also refer to the Sustainable Economy, Marine Transport and Marine Recreation information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.
219(ix)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	The LNG proposal promises some employment, but with no guarantees. Specialist construction skills do not likely exist anywhere near the area, so much of the labour would have to be imported, probably from outside of the province. The few local jobs may amount to no more than low-paid labourers, cleaners and hamburger flippers.	Workforce	Woodfibre LNG will develop a Local Hiring Strategy, a Local Training Strategy and Local and Regional Procurement Strategy in order to ensure that the local workforce and economy can realize (to the maximum extent possible) the potential economic benefits of the Project. These strategies will ensure that the labour force is well- positioned to seek Project employment based on individual capacities to supply needed skills; maximize employment opportunities for residents in Squamish, Whistler and Metro Vancouver; and ensure that local and regional businesses can access the benefits of increased demand for goods and services from the Project.

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219(x)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	Recent news seems to cast considerable doubt on the financial viability of this project. A rising glut of LNG world-wide and a slumping price have been exacerbated by a large, long-term contract to supply piped gas overland from Russia to China at a much lower price then that mentioned with gas from this coast. Given this uncertainty over the LNG price into Asia, the possibility arises that this proposed project at Woodfibre could collapse into insolvency within a short period of time, even before any taxes are paid. This would leave the BC taxpayer, yet again, saddled with the enormous cost and time of cleaning up another industrial mess in Howe Sound. Are we to wait another generation while all of this misguided foolishness plays out? We may not be as lucky with restoration, the second time around.	LNG Industry Decommissioning	 Woodfibre LNG Limited took ownership of the Woodfibre site in February 2015, and is already contributing to the District of Squamish's tax revenue. Should the Project go ahead, Woodfibre LNG expects to pay at least \$2 million per year in property tax during operation. As LNG Projects involve significant capital investment which is recovered over a long period of time, final investment decisions (FIDs) on LNG projects are not made lightly, nor are they based on the price of oil or gas on any given day, or even a given year. Rather, FIDs are made based on long-term forecasts and take into account numerous factors, many of which are specific to the project or the proponent(s). Current forecasts are that the global demand for energy will increase by 35% by 2035, and the specific demand for natural gas is expected to increase by 55%¹³. The increasing standards of living and rapid economic growth in Asia (6-8% GDP growth annually) are the key triggers for the increase in demand¹⁴. China's energy demand increases by 5% annually¹⁵. Not only is Asia seeking new sources of energy to meet needs (diversify), Asia is looking for cleaner alternatives (e.g. China aims to reduce coal consumption to less than 65% total energy usage by 2017)¹⁶. The Woodfibre LNG Project is expected to be in operation for at least 25 years. Under Section 21 of the Liquefied Natural Gas Facility Regulation, Woodfibre LNG Limited must complete site restoration on the permitted LNG facility site, which includes removing all facility structures.
219(xi)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	PUBLIC SAFETY In 2006, high winds roaring down Howe Sound hit Stanley Park in Vancouver, uprooting hundreds of trees and devastating the area. Such strong winds are not unusual in Howe Sound. Apparently LNG tankers are tall and susceptible to cross winds. For this reason they have to maintain a speed of 12 or so knots while moving up the Sound, thus adding to the hazard of them striking something. These enormous "Class A Hazard" rated LNG tankers will also have to avoid colliding with ferries and with vastly increased numbers of large "Dilbit" carrying tankers emerging from the Vancouver area. Any accident with these bitumen carriers will bring all traffic to a halt over a wide area and probably for a long period afterwards, while clean-up, which is virtually impossible, is attempted.	Safety	Subject to recommendations of the Pacific Pilotage Authority and conduct of passage by BC Coast Pilots, LNG carriers will proceed at a reduced speed of between 8 to 10 knots within Howe Sound. At this reduced speed, the vessel is fully manoeuvrable and can be stopped quickly. The LNG carriers will navigate through the established commercial shipping route in/out of Howe Sound (through Queen Charlotte Channel) to the Strait of Georgia and out to the Pacific Ocean. The carriers will be escorted by at least three tug boats, and will be piloted by BC Coast Pilots who are experts with Howe Sound. BC Coast Pilots, who are responsible for piloting all large commercial ships in transit in BC waters, have told Woodfibre LNG Limited that because Howe Sound is generally a mile or more wide with a minimum channel width of 0.8 nautical miles and few outlined navigational hazards, they would not characterize Howe Sound as a narrow waterway (BC Coast Pilots, pers. comm). Please also refer to the Marine Transport and Public Safety information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.

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¹³ BP Statistical Review of World Energy Report, June 2013. < http://www.bp.com/content/dam/bp/pdf/statistical-review/statistical_review_of_world_energy_2013.pdf>

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ICIS. China Natural Gas Annual Report Wood Mackenzie">http://www.icis.com/energy/channel-info-about/china-natural-gas-annual-report/>Wood Mackenzie. LNG Service Tools: Understanding the dynamics of the global LNG industry < http://public.woodmac.com/content/portal/energy/highlights/wk3_Nov_13/LNG%20Service%20and%20Tool.pdf> 15

¹⁶ National Development and Reform Commission. 2014. Social Development and National Economics Statistics Bulletin 2011 – 2013.

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219(xii)	February 20, 2015	Ray Bradbury - West Vancouver, British Columbia	Howe Sound, which is enclosed by steep mountain sides, would be inaccessible in the event of an LNG tanker disaster, with road, rail and sea transport knocked out. Both highway and rail lines are exposed directly across from the Woodfibre site and follow the proposed LNG tanker route all the way to West Vancouver. This mad scramble to consume the few remaining fossil fuels such as oil, shale gas and tar sands bitumen, for short-term profits, is steadily destroying our world. Let us leave almost all of it in the ground for future generations to decide how cautiously it can be used – or are we not supposed to care about their future or the future of our planet?	Safety	 Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and Gas Activities Act and the associated Liquefied Natural Gas Facility Regulation, national and BC building codes, as well as national and international standards, guidelines and codes of practice where there are no applicable codes for BC. Liquefied natural gas has been shipped safely around the world for 50 years. There has never been a recorded incident involving a loss of containment of an LNG carrier at sea. LNG carriers are among the most modern and sophisticated ships in operation. These ships have robust containment systems, double-hull protection and are heavily regulated by international and federal standards. In the unlikely event there is a spill from an LNG carrier, LNG will never mix with water. Instead, it will quickly return to a gas state, and because methane is lighter than air, the gas will rise and dissipate into the air. The Accidents and Malfunctions section (Section 11.0) of the Application assessed the consequence and frequency of effects resulting from credible worst case scenarios for the Project. It showed that potential risks to the public were within the tolerable risk criteria regulated by the BC Oil and Gas Commission (OGC). The OGC will include a review of the quantitative risk assessment for this Project in the permit application review to confirm that the study and results meet the regulated requirements. Additional information on accidents and malfunctions was provided to the EAO on April 29, 2015. Please also refer to Public Safety and Marine Transport information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.
220	February 20, 2015	Personal Information Withheld - Britannia Beach, British Columbia	All issues around fracking aside, the proposal to allow re-industrialization of Howe Sound and the Sea to Sky corridor is incredibly short sighted. This area is already a world class destination not only for tourism but for a pool of talented people that are moving into the region and bring with them capital and skills that will dwarf any advantage the Woodfibre LNG would generate under the most optimistic of expectations. This cannot and should not happen.	Effects of the Project on Tourism, Economy	 Thank you for your comment. Woodfibre LNG Limited is of the view that the Woodfibre site is the right fit for an LNG facility. It features: zoned industrial, more than 100 years of industrial use, deepwater port, access to established shipping routes, access to FortisBC pipeline, access to BC Hydro transmission grid, and access to labour force. Woodfibre LNG Limited is also of the view that tourism and industry can work together to create responsible economic development in Squamish. BC Ferries and Squamish Terminals have shown how industry can successfully coexist with local tourism and recreation, and Woodfibre LNG Limited is working hard to follow that example. An assessment of the potential effects of the Project on tourism is included in Section 6.2 Labour Market and Section 6.3 Sustainable Economy. The Application concluded that there were no Project-related significant adverse residual effects to the economy. The Application assesses the potential effects of the Project to outdoor recreation in Section 7.4 Land and Resource Use. With the proposed mitigation, it is not likely that there will be significant residual effects to outdoor recreation. Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.

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221	February 20, 2015	Personal Information Withheld - Squamish, British Columbia	I have spent considerable time reading several of the documents provided by the proponents in this Environmental Assessment application process. By no means could I possibly have read all of the thousands of pages of support materials – but I have picked areas that were of interest to me where I feel I might actually have some small measure of my own expertise to judge the content fairly. I have also made every effort to verify information I have read as best I can. I have particularly appreciated the District of Squamish's Committee on LNG and have found the minutes that are available for the public to read informative and giving answering to questions in a fair way. I have attended most of the public opportunities to engage with the Woodfibre LNG proponents as well as sessions organized by those that are opposed to an LGN plant in the Squamish area. I give this background because I believe that it shows that I am trying to base my opinion on an informed body of content and gaining new understandings about the project - and not basing my decision strictly in accordance to values or ideological positioning. In other words I tried hard not to have a defining starting position that had my efforts focused on proving my point rather than learn and assess. I have come to the opinion that WLNG is a sound, well researched project. The right project in the right place. I believe that WLNG have been thorough in their planning and thoughtful to community expectations in their research questions and applying solution to the issues. I do believe it is a project that meets the EAO's stated goal of promoting sustainable development while avoiding or minimizing potential adverse effects. Please grant this project its permit to proceed.	LNG Project	Thank you, this comment is noted.
222	February 20, 2015	Personal Information Withheld - Lions Bay, British Columbia	We are very concerned about the impact the WF/LNG project would have on Howe Sound. So much of what we have read and heard over and over again will NEVER assure us that we have enough confidence in our Federal and Provincial Governments to make the right choice. There are too many unanswered questions and holes. The future does not equal fracked gas from our Super Natural British Columbia. We are totally against this project in any form of shape.	LNG Project	Thank you for the comment.

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223	February 21, 2015	Bowen Island Conservancy - Bowen Island, British Columbia	 We represent a group of over 200 members who are residents of Bowen Island and who have a number of concerns and questions with regard to the above project. The concerns are: The effect of the tanker traffic on the increasing recreational and tourism busi-ness in Howe Sound, and how any economic benefits from the WFLNG project will be offset by even greater losses in the tourism industry in this area. The effect of the tanker traffic on small boat recreational use in Howe Sound and the resulting loss to the tourism industry. The effect of the tanker traffic on ferry schedules as a result of the exclusion zones and the huge disruption this will cause to residents and visitors alike. The effect of air, light, sound and water pollution from WFLNG on the marine life in Howe Sound. Howe Sound has finally been coming back to life after years as being used as a dumping ground for the various industries around the Sound. The introduction of the WFLNG plant will destroy much of the marine life Shoreline effects of swells from the accompanying tugs and one enormous LNG tanker are a concern for boaters and small craft, as well as those along the shore-line The potential for an accident or collision with a tanker. However miniscule the chances of such an accident, any resulting explosion will be catastrophic to the human population in this area. Our questions include: How long will LNG or natural gas be stored in the floating storage and offloading units at WFLNG? Will the government limit the storage of LNG at any given time in order to minimize the chance of explosion? What are the conditions that will be placed on the WFLNG with respect to flaring off gas from the storage unit and from any stationary tankers? Will the EAO insist, as a condition of permitting this facility, that WFLNG apply best practices with respect to using alternative practices to gas venting and flaring to ensure a reduction of the	LNG Project	Thank you for the comments. For a response to this comment, please refer to the "Woodfibre LNG Limited May 2015 Memo to Frequently Asked Questions", comment # 24-38, and 47.

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			 How will CO2 emissions from the WFLNG be measured and monitored? 		
			 What experience does this company, Woodfibre LNG, have with building and operating an LNG plant? 		
			 How many tugs will be present as these tankers move through Howe Sound and how often will they be travelling through Howe Sound? 		
			• With respect to the heating and chlorination of sea water, what will WFLNG do to apply best practices to cool and de-chlorinate this water when returning it to the ocean to minimize the environmental damage?		
			 Please provide details of the recreational traffic in Howe Sound – ferries, sail-boats, power boats, tour boats, kayaks, etc. – and how the presence of these large tankers with the necessary exclusion zones around them will affect this traffic. Please ensure these studies are done when there is summer traffic in Howe Sound. 		
			 Please provide information on how an explosion, however remote, of an LNG tanker will affect the population that lives in Howe Sound (see federal govern-ment decision to refuse LNG tanker traffic on the east coast of Canada). 		
			 When will WFLNG complete the TERMPOL review, the Minister of Transporta-tion's recommendations on LNG shipping for Howe Sound? This must form part of the review prior to the issuance of any EA certificate. 		
			The scope of the assessment for this project, according to sections 11 and 13, is to consid-er "the potential adverse environmental, economic, social, heritage and health effects of the proposed Project, including cumulative effects and practical means to avoid, mini-mize or otherwise manage any such potential adverse effects." An analysis of the information to date requires a recommendation of non-approval to the Minister. We ask the EAO to		
			uphold the clear mandate it is given under the Envi- ronmental Assessment Act and to recommend rejection of this project. The "potential ad-verse effects" are of such significance that mitigation measures are not the answer. Out-right rejection is the approximate for the answer.		
			being done as a substi-tute process for any Canadian environmental assessment, the clear language in section 5 of the Canadian Environmental Assessment Act requires consideration of fish and fish habi-tat, aquatic		
			species and migratory birds, all of which will suffer serious negative effects if this project is allowed to proceed.		

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			Because of the extensive concerns and the volume of information to review, we ask that you extend the period of public consultation for another month until April 9, 2015.		
			Yours truly,		
			The Board of the Bowen Island Conservancy (http://bowenislandconservancy.org/)		

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Comment #	Date Received February 21, 2015	Author Personal Information Withheld - Bowen Island, British Columbia	I attended the public meeting at Bowen Island on the Woodfiber proposal. I am completely opposed to this project being conducted in Howe Sound. Damage to the recovering marine environment will occur. Inevitably, the public will be inconvenienced, with disruption to boating and ferry traffic. A major component of the environment, the public, will be placed at substantial safety risk from explosion along with the added risk of a significant terrorist target in a populated area. The high tourism potential of Howe Sound will be sacrificed, and on and on.	Effects of the Project on Marine Environment, Marine Transport, Public Safety, Tourism	Proponent's Response Thank you for your comment. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. The potential effects of the Project on the environment have been assessed in Section 5.0 Assessment of Potential Environmental Effects of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures are sumarized in Section 22.0, and include mitigation adverse residual effects to the environment. The Application concluded that there were no Project-related significant adverse residual effects to the environment. All discharges to the marine environment will meet or exceed applicable legislation and guidelines, including the BC Water Quality Criteria (marine and estuarine life), the Canadian Environmental Quality Guidelines (water quality guidelines for the protection of aquatic life – marine), and the Fisheries Act. The seawater cooling system will require a waste discharge permit under section 14 of the Environmental Mangement Act. Woodfibre LNG Limited is legally required to comply with all requirements as outlined in the permit. Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and
					public safety reasons, but will also be designed to prevent access to saboteurs. Security for LNG carriers in transit will be addressed by the Canadi Coast Guard and Transport Canada. It is unlikely that an attack on LNG carrier would successfully penetrate an LNG container and result in loss of containment, given the multiple layers of steel that would need to be penetrated. The consequence and frequency for worst case scenario for potential loss of containment of LNG on an LNG carrier due to grounding and collision with another vessel is considered in Appendix 11-1 of the Application. Please also refer to Public Safety Marine Transport, and Sustainat Economy information sheets that have been prepared as part of th Woodfibre LNG Limited response to public comments

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225	February 21, 2015	Personal Information Withheld - Bowen Island, British Columbia	I am wholly opposed to LNG's Woodfibre project. Natural gas is supposed to be the new sustainable energy source. The "green" power, which would be way better for the environment than coal. But is that really the truth? Recent studies show that methane, when released into the atmosphere, is 86 to 105 times more powerful than CO2 at disrupting the climate over a 20 year period. Similar to carbon dioxide methane continues adding to global warming by trapping the suns heat inside the earth's atmosphere. The IPCC (intergovernmental panel on climate change) calculated that methane is 34 times stronger as a heat-trapping gas than CO2 is. Scientists report that at the rate that methane is being released into the atmosphere it could push the climate over a "tipping point" in the next 18-25 years. LNG tries to assure us that no gas will escape, that their transportation method has no room for failure. Again they are wrong, EPA's (environmental protection agency's)most recent U.S. Greenhouse Gas Inventory shows that the oil and gas industry leaked or released approximately 8.4 million metric tons of methane in 2011 alone. Parts of the LNG extraction and preparation process are liquefaction, offloading and regasification. James Bradbury of the World Resources Institute explained: "The process of liquefaction, transport, and regasificantion of LNG is highly emissions- intensive, increasing by 15 percent the total emissions, compared to natural gas that is produced and consumed domestically. These added upstream emissions also significantly reduce the relative advantage that natural gas would have over higher- emitting fuels, like coal and oil." A Stanford study states that there is already 50% more methane in the atmosphere than estimated. Colorado has recently seen a boom in natural gas and oil plants. The residents in Colorado were promised the same things we were: continued safe living environments and minimal leakage of methane. Tests have shown that the gas drilling is emitting three times more methane then the public	LNG Industry Climate Change	Thank you for your comment. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ¹⁷ . A literature review of key studies of comparing emissions from natural gas and coal can be found here: http://www.capp.ca/getdoc.aspx?DocId=215278&DT=NTV Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the protential Project-related gfects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.

¹⁷ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.

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			equipment. They found 5,893 leaks of methane all around the city. I live right by the water on Bowen Island. If this project goes through I will be able to hear and see the tankers passing and I will hold my breath until it passes (which will be extremely hard because it will take three hours to pass Bowen), scared of what could happen if one of the tankers leaked or even exploded. I am 15 years old and I am already scared for my future and what LNG Woodfibre could mean for it.		
226	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	WLNG in section 12.0 of the application refers to Howe Sound as a fjord approximately 3 km. wide. What are the exact dimensions along the shipping route, especially the most narrow and where are they exactly?	Shipping Route	Thank you for the question. Howe Sound at its narrowest along the shipping route is 1,440 m (1.4 km), which occurs between Anvil Island and the mainland. The width of Howe Sound at the proposed Woodfibre LNG terminal is 5.2 km with no large vessel movements within 2.7 km. The minimum depth along the entire shipping route in Howe Sound, including at the proposed Woodfibre LNG terminal is 60m. Please also refer to the Marine Transport information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
227	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	In Section 12.0 of the WLNG application, there is a mention in part 12.1 that the project area is within the zone of moderate to high earthquake risk. BC Energy and Mines Ministry has issued a map that shows all the faults in BC. Woodfibre sits on two faults and since recently there was an earthquake in Squamish what is the plan going forward to assess the security of the not only the plant but also the floating welded together storage vessels situated at the foreshore? It would seem to me that instead of relying on risk assessments based on analysis for insurance purposes you might want to consider the safety of even considering placing such a hazardous industrial facility over two faults. What are you going to do now that mother nature has provided an earthquake where you said the risk is basically not worth worrying about.	Seismic Hazard	 Thank you for the comment. Woodfibre LNG is designing and building a facility that prevents or minimizes the potential effects of geotechnical and natural hazards. Third party independent experts have conducted a detailed investigation and review of geotechnical and natural hazards of the Woodfibre site. The Project will be designed: For a one in 2,475 year earthquake. In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants. To address the potential for liquefaction, ground improvements will be undertaken as part of Project construction and if deemed necessary, critical infrastructure will be moved to other locations within the project site If a ship is at dock at the time of a seismic event, and the movement between the LNG carrier and the floating storage and offloading unit (FSO) is outside safe operating parameters, the LNG transfer will safely shutdown and release the LNG carrier from its mooring and allow it to naturally move away from the FSO with assistance from the tugs on standby. Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek. Buildings will be constructed at different elevations that correspond to their risk category in case of flooding. Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction. To address the potential effects associated with wildfire, a fuel hazard assessment will be conducted based on the Guide to Fuel Hazard Assessment and Abatement in British Columbia.

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		Helcermanas- Benge - West Vancouver, Horseshoe Bay, British	production, storage and handling. Will they have someone designated to oversee the design, engineering, building etc. or is WLNG just promising to follow general guidelines?		Project, a Table of Conditions will be developed that outlines all of the requirements with which the Project will have to comply. Woodfibre LNG Limited will be legally responsible for ensuring all conditions are met.
		Columbia			British Columbia (APEG BC) requires qualified professional engineers to oversee and sign-off on all engineering designs and construction.
					The Project will also require a Facility Permit, Leave to Commence Construction and Leave to Operate from the Oil and Gas Commission (OGC) as well as numerous other environmental permits. The OGC will continue to regulate the Project throughout its life. The OGC will not issue the Facility Permit or Leave to Construct without first satisfying itself that WLNG has been designed in accordance with the relevant codes and standards.
230	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	it is stated in part 12.2.5 under Project Design Standards of Section 12.0 that where neither federal nor provincial legislation exists, WLNG will look to jurisdictions outside of Canada for applicable codes and standards. Surely you must already be aware of such situations. What are they and what jurisdictions outside Canada have you looked at and how do those requirements affect what you are planning?	Legislation	As the Project design and discussions with permitting agencies advance, the permits and authorizations that are required for the Project evolve. The statement in the Application is intended to capture the possible additional standards that may be used.
231	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	On page 4 of Section 12.0 there is a mention of AMEC contracted to work with WLNG. Was AMEC doing studies for WLNG while contracted to work for Mount Polley Mines?	Engineering	Woodfibre LNG has retained AMEC and other engineering firms to perform professional services relating to its Project.
232	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Under Winds and Waves in Section 12.0 of the WLNG application it is stated with respect to wind: Outflow wind events in Howe Sound typically have durations as short as eight to 10 hours but can last four to five days. Howe Sound is typical of many fjords along the coast of BC that experience strong outflow winds during winter. it is my understanding that LNG tankers, due to their high windage problems, must leave the Sound if the winds are over 25 knots. However at the townhall in West Vancouver I was told they could still transit the sound and take the berth in winds up to 45 knots. Which is it? What happens if the carrier is at the berth and winds gust up to 80 knots which has happened in that area? Is surging a problem? How will that be handled? Does the ship exit the sound or ride it out in that extreme weather?	Effect of Wind on LNG Carriers	Under paragraph 3.13.4 of the TERMPOL process (TP743E), Woodfibre LNG Limited will present the operational and environmental limitations for docking and undocking of an LNG carrier for appraisal, including in adverse weather conditions. The limitations will be reflected in the Port Information Book, in conformance with TERMPOL 3.16. Subject to the availability of suitable anchorages in the future, Woodfibre LNG has committed that in the event an LNG carrier is required abort berthing or vacate the berth due to operational or environmental constraints, it will proceed out of Howe Sound and await off Canadian waters in the Pacific Ocean till conditions subside at which time the vessel will re-berth and conduct operations safely.

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233	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	What is the drift factor for the LNG tanker should it lose propulsion which just recently happened off the coast of New England in the Boston area but was fortunately in open ocean. In Howe Sound there is no such luxury to be had. In a high wind situation and along the shipping route near a population centre let's suppose the ship loses propulsion, what is the plan to get control of a fast moving ship in a narrow area between Anvil Island for example and the highway along the shore? Or even more exciting, how about in the narrow approximately two mile width between Whytecliffe and Bowen Island?	Safety	Thank you for the questions. Fast time simulations will be conducted using high wind and adverse weather conditions for various fail scenarios to determine the number and power of tugs to safely manage an LNG carrier within Howe Sound. The results of this analysis will be submitted as part of the TERMPOL (Technical Review Process of Marine Terminal Systems and Transshipment Sites) process for risk assessments. From these fast time simulations it has been determined that three powerful tugs, two at the stern (one which will be tethered at all times) and one tug running upfront could safely handle the LNG carrier under all expected wind and weather conditions of Howe Sound with a full engine breakdown and with the rudder in hard over condition. Before the LNG tankers are permitted to navigate Howe Sound, full mission simulations will be conducted to allow the BC Coast Pilots and tugs to practice failure manoeuvres in high wind conditions and determine if any further equipment or mitigations are required and to permit them the practice of handling the LNG tanker under these conditions Please also refer to the Marine Transport information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
234	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	It is my understanding that the tankers will now transit on the Bowen Island side of Passage Island. On what basis was this decision made?	Shipping Route	If the Woodfibre LNG Project goes ahead, LNG carriers – three to four per month, accompanied by at least three tugboats and piloted by two BC Coast Pilots – will transit Howe Sound on the existing shipping route through Queen Charlotte Channel east of Bowen Island. The carriers will then pass Gambier Island and Anvil Island as they travel to the Woodfibre LNG terminal. Each carrier will take a similar route in reverse to leave Howe Sound. The reason you may be hearing about a second route on the other side of Bowen Island is because Woodfibre LNG Limited was required, as part of the Environmental Assessment process, in 2013, to identify an alternative route for LNG carriers. As part of that requirement, Woodfibre LNG looked at having carriers transit through Collingwood Channel west of Bowen Island. This route is no longer under consideration – as illustrated in Section 2.4.2 Alternative Shipping Routes within Howe Sound of Woodfibre LNG's Environmental Assessment Certificate Application. Please also refer to the Marine Transport information sheet that was provided as part of the Woodfibre LNG Limited response to public comments.
235	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Have any studies been made re: the possibility of lightening strikes to the storage vessels, carrier and even the facility? I ask this since your application states 61.4% of wildfires in BC were started by lightning strikes. What is the plan to deal with a catastrophic event based on lightening?	Effects of the Environment on the Project	No site specific lightning studies have been undertaken to date. This element will be assessed during detailed design, and should additional engineering mitigation measures being required for either the facility or FSO, they will be implemented then. Lightning strikes are not uncommon on ships, mainly because at sea, ships represent the highest available target. Steel ships have the capacity to allow the energy from a strike to be transferred directly to the water through its hull without harming its people and its cargo. In addition, LNG carriers do not allow any oxygen (air) in their cargo spaces in order to eliminate the risk of fire in case of a spark caused by any source, including lighting. The FSO will be built to the same standards as normal ships. The marine industry has very stringent requirements for electrical insulation, so that electrical equipment and wiring does not suffer any damage during a lighting strike. Equipment insulation is required to be monitored regularly in order to detect possible deterioration over time.

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236	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Fog: Section 12.0 states fog data are not available for the project site. What is this? According to Environment Canada (as stated in the Application) fog is defined as reducing visibility to 0.5 statute miles (0.8km) Is a fog situation dangerous for the carrier transiting the sound and berthing at the facility?	Effects of the Environment on the Project	The carriers will be escorted by at least three tug boats (one of which will be tethered at all times), and will be piloted by BC Coast Pilots who are experts with Howe Sound navigation. BC Coast Pilots will source their own wind and weather conditions data, and Woodfibre LNG will comply with and utilize the expertise and intimate local knowledge of the BC Coast Pilots, Pacific Pilotage Authority, Transport Canada and the Canadian Coast Guard.
237	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Section 12.0 states - Extreme winds can produce high waves, dense blowing sea foam, heavy tumbling of the sea and poor visibility all of which can make land and marine working conditions hazardous and potentially result in temporary closure of facilities. There's a reason there is a wind festival in the north end of Howe Sound. There's lot's of high wind. What is the plan to protect the carrier and the floating welded together LNG tankers that are labeled as your storage facility in the case of extreme weather events?	Effects of the Environment on the Project	 Woodfibre LNG Limited will use two existing LNG carriers as the floating storage and offloading unit (FSO). The FSO will store and offloaded the LNG to LNG carriers for export. The advantage of using LNG carriers for storage is that they are designed to withstand the harshest oceanic environments, including some of the most demanding like the North Atlantic and North Sea. Additionally, the cargo tanks of LNG carriers are designed to very high load requirements because they need to withstand the stresses of internal LNG motion during salling in any weather condition, not once but over and over again for the vessels lifetime. By placing these vessels in a standstill condition and in an environment such as Howe Sound, where LNG motion will also be minimal, they are more than capable of remaining there safely for long periods of time. In addition, floating storage is isolated to the effects of earthquakes, an important design aspect to consider when building in the west coast of Canada. All LNG ships are designed and built under the most stringent international requirements and under the watchful eye of Classification Societies (like the America Bureau of Shipping (ABS) or Lloyd's Register) that approve the designs and supervise the construction of any ship intended to sail in international waters Classification societies also have stringent inspection regimes during the ships lifetime that all ships have to comply with in order to be allowed to sail. The ships intended for use as the FSO were built and maintained under the regimes of ABS, and they will also approve any new designs and supervise the conversion of these two ships to ensure that they are fit for the use intended. A maintenance program will also be put in place to ensure the safety of the cargo tanks and the integrity of the hull is maintained throughout the FSO's lifetime. The vessels will be converted in such a way that they are certified to remain on side permanently; therefore all inspections and maintenance

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238	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Wind and sea conditions in conjunction with tides can affect several aspects of shipping operations, including delaying pilot boarding or disembarking, docking and LNG transfer. I've read that surging which will move the carrier against the floating, welded together LNG tankers that serve as storage vessels full of potentially explosive product can create several potentially catastrophic situations. What have you planned for and how can you react if the carrier breaks free and drifts against the storage vessels, if the pipe loading the product comes loose and there is a leak of LNG for example?	Effects of the Environment on the Project	 Woodfibre LNG is designing and building a facility that prevents or minimizes the potential effects of geotechnical and natural hazards. Third party independent experts have conducted a detailed investigation and review of geotechnical and natural hazards of the Woodfibre site. The Project will be designed: For a one in 2,475 year earthquake. In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants. To address the potential for liquefaction, ground improvements will be undertaken as part of Project construction and if deemed necessary, critical infrastructure will be moved to other locations within the project site If a ship is at dock at the time of a seismic event, and the movement between the LNG carrier and the floating storage and offloading unit (FSO) is outside safe operating parameters, the LNG transfer will safely shutdown and release the LNG carrier from its mooring and allow it to naturally move away from the FSO with assistance from the tugs on standby. Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek. Buildings will be constructed at different elevations that correspond to their risk category in case of flooding. Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction. To address the potential effects associated with wildfire, a fuel hazard Assessment will be conducted based on the Guide to Fuel Hazard Assessment and Abatement in British Columbia. Seismic monitors will be installed on critical process equipment and linked to the facility's ESD (Emergency Shutdown System). Should a seismic event occur, and the vibration experienced is outside the designed parameters of the seismic monitors, the facility (via the ESD) will automatically trip and place itself in

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					This will later be supplemented by full mission simulations involving the Pilots, tugs and LNG carrier at a simulation center to ensure that the results generated earlier are accurate and to provide these participants the practice of conducting these manoeuvres safely. The advantage of using existing vessels for storage is that in the case of LNG carriers, they are design to withstand the harshest oceanic environments, this include some of the most demanding marine environments like the North Atlantic and North Sea. By placing these vessels on a stand still condition and on a benign environment like of the Howe Sound, they are more than capable to remain there safely for long periods of time. The cargo tanks on ships are designed to very high load requirements because they need to withstand the stresses of the LNG motion inside during sailing in any weather condition, not once but over and over again for the vessels lifetime. LNG motion at the WLNG site will be minimal. In addition, floating storage is isolated to the effects of earthquakes, an important design aspect to consider
239	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	It states in section 12.0 that the marine project components, such as the floating storage and offloading unit (FSO) and ferry dock are somewhat sheltered from incoming waves and swells. What exactly does "somewhat sheltered" mean? For example, if a ship transiting the shipping land loses propulsion or has some other problem how can it be stopped from crashing into the berthed carrier and/or the storage vessels?	Marine Transport	 when building in the west coast of Canada. The width of Howe Sound at the proposed Woodfibre LNG terminal is 5.2 km or 17,060 feet with nearest distance to Darrell Bay being 2.7 km, or 8858 feet, and 60 meters deep with no large vessel movements within approximately 2.7 km or 8858 feet. The upland portion of the Project area will be fenced, and a control zone will be established around the marine portion of the Project area. The objective of the marine control zone is to protect public safety. There will always be one tugboat stationed at the Woodfibre LNG site for emergency response. If an LNG carrier is at the site, the additional three tugboats that escort the carrier to the Woodfibre LNG terminal will be present and available to assist a ship in distress. Please also refer to the Marine Transport information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
240	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Text: Section 12.0 also states: LNG carrier are designed for open ocean transit and are unlikely to be affected by the largest waves possible in Howe Sound. Similarly, ocean going tugs are available so therefore interactions between waves and LNG carriers are considered negligible. Okay. But the tanker and tugs will not be operating in the open ocean. They will be operating in the confines of a fjord with islands. There is no open ocean allowing for drifts and turns. How long does it take for the 1000' tanker to stop and turn. How long does it take for the tugs to get a tanker under control?	Marine Transport	Subject to recommendations of the Pacific Pilotage Authority and conduct of passage by BC Coast Pilots, LNG carriers will proceed at a reduced speed of between 8 to 10 knots within Howe Sound. With a tug tethered at the stern and utilizing the engines in reverse propulsion, the LNG carrier can be stopped within 450 to 600 meters from a propelled speed of 8 to 10 knots. The utilization of the additional two escort tugs will further reduce this stopping distance significantly. An LNG carrier needs a 180-metre (one way) wide channel for transit and 600 metre wide channel for turning with tugs. Howe Sound at its narrowest along the shipping route is 1,440 m. Please also refer to Public Safety and Marine Transport Information Sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.

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241	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Section 12.0 of the application states that over the lifespan of the project it is likely that the following will happen outside the range of the project design and may adversely affect project operation. There will be lightening events, drought that affects supply of water, extremes of temperature and fog which can affect navigation safety and shipping schedules. Where will the necessary water come from and who will inspect the site to ensure that WLNG lives up to promise to not take water from Mill Creek during such events. In the case of fog, will the carrier still berth or have to leave the sound to anchor somewhere. Where is that anchorage position and who oversees it's use?	Effects of the Environment on the Project	The section of the Application that is referenced in the comment appears to be Section 12.3.1 Extreme Weather and Weather-related Events – Consequences and Likelihood of Events. The intent of this section is to anticipate the extreme weather that could happen, in order to incorporate proper Project design and at the earliest stages of the Project. The measures that will be implemented to avoid or minimize the potential effects of wind and waves that will be incorporated into the Project design are listed in Section 12.3.1.4 Mitigation Measures. The Project design measures include operation management plans that establish actions that will be taken when weather conditions approach the Project-specific environmental limits. Woodfibre LNG Limited has committed to maintaining minimum instream flow releases, which will be determined by a qualified professional. This means that the water licence could not be used to capacity during low flows, and flows that are protective of fish and fish habitat will remain in Mill Creek. In the event of fog, the carrier would delay transit from the Woodfibre LNG facility. The carriers will be escorted by at least three tug boats, and will be piloted by BC Coast Pilots who are experts with Howe Sound. BC Coast Pilots will source their own wind and weather conditions data, and Woodfibre LNG will comply with and utilize the expertise and intimate local knowledge of the BC Coast Pilots, Pacific Pilotage Authority, Transport Canada and the Canadian Coast Guard.
242	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	What permits does WLNG have to have in order to operate a permanent moorage in place for the incoming carriers? What project design will be incorporated to "avoid or minimize the potential effects of wind and waves"?	Effects of the Environment on the Project	The LNG vessels that call at the Woodfibre LNG terminal would secure to the floating storage and offloading unit (FSO) directly. The FSO is a fixed works structure, as defined by BC Oil and Gas Commission regulations. There will be no moorage of vessels to buoys or other floating objects. The Woodfibre property is owned by Woodfibre LNG Limited and the water lot will be leased Crown land. Once the FSO design is finalized, a dynamic mooring analysis of LNG carrier to the FSO will be conducted to ensure the number and strength of lines and fenders are sufficient to withstand extreme winds, waves and tidal conditions over a 25-year return period. These results will be then be corroborated with the BC Coast Pilots and the Pacific Pilotage Authority and included in the TERMPOL submission to the Technical Review Committee for their recommendations and suggestions for improvement of Project-related marine safety.

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243	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	In Section 12.0, under extremes of wind/waves, it is stated that the carrier may stay in the permanent vessel moorage designed to safely withstand extreme weather, wind and marine conditions. Then it is stated that the emergency release system between the FSO and the LNG carrier could release the carrier during extreme wind and wave events. Where would the carrier go? Who makes the decision that it cannot stay in the berth but has to move out?	Effects of the Environment on the Project	Woodfibre LNG Limited will use two existing LNG carriers as the floating storage and offloading unit (FSO). The FSO will store and offloaded the LNG to LNG carriers for export. The advantage of using LNG carriers for storage is that they are designed to withstand the harshest oceanic environments, including some of the most demanding like the North Atlantic and North Sea. Additionally, the cargo tanks of LNG carriers are designed to very high load requirements because they need to withstand the stresses of internal LNG motion during sailing in any weather condition, not once but over and over again for the vessels lifetime. By placing these vessels in a standstill condition and in an environment such as Howe Sound, where LNG motion will also be minimal, they are more than capable of remaining there safely for long periods of time. In addition, floating storage is isolated to the effects of earthquakes, an important design aspect to consider when building in the west coast of Canada. All LNG ships are designed and built under the most stringent international requirements and under the watchful eye of Classification Societies (like the America Bureau of Shipping (ABS) or Lloyd's Register) that approve the designs and supervise the construction of any ship intended to sail in international waters Classification societies also have stringent inspection regimes during the ships lifetime that all ships have to comply with in order to be allowed to sail. The ships intended for use as the FSO were built and maintained under the regimes of ABS, and they will also approve any new designs and supervise the conversion of these two ships to ensure that they are fit for the use intended. A maintenance program will also be put in place to ensure the safety of the cargo tanks and the integrity of the hull is maintained throughout the FSO's lifetime. The vessels will be converted in such a way that they are certified to remain on side permanently; therefore all inspections and maintenance will be carried out on site. This is no

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244	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Table 12-7 of Section 12.0 states the following: Pilot will disembark if there are sustained winds @ 40 knots Berthing will be delayed if sustained winds are at 25 knots and waves at 1.5 metre height Loading arm connection is delayed if winds are at sustained 30 knots Cargo transfer is suspended if winds are sustained at 30 knots Ares are disconnected if winds are sustained at 35 knots Consider leaving berth if winds are sustained at 40 knots. Question: So why was I told at the West Vancouver Townhall that there is no problem until 45 knots? I did hear the answer correctly because I did suggest that I was of the understanding that the ship would not enter the sound if the wind was over 25 knots.	Effects of the Environment on the Project	Under paragraph 3.13.4 of the TERMPOL process (TP743E), Woodfibre LNG Limited will present the operational and environmental limitations for docking and undocking of an LNG carrier for appraisal, including in adverse weather conditions. The limitations will be reflected in the Port Information Book, in conformance with TERMPOL 3.16.
245	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	12.0 states that if streamflows in Mill Creek are too low to permit water extraction and if an alternate source of water cannot be located, the LNG facility will be shut down until streamflows are sufficent to permit water extraction. Question: it it that easy to just shut down the facility and start it up again? How does that affect the flaring, the LNG stored in the storage vessels tanks up to that point and also if the LNG carrier is loading? Isn't there a problem should the tanks not be full?	Temporary Shutdown of Facility	Raw water supplied from Mill Creek will be used to fill firewater tanks onsite and a small percentage is required for the liquefaction process. In the event of Mill Creek having insufficient water available, it is more likely that the required water will be brought to site for liquefaction rather than shutting the facility down. The LNG facility can be place into recirculation mode very quickly; however, complete shutdown and depressurisation of the system can take several days.
246	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Section 12.0 is a little confusing when it comes to 12.3.1.5 Conclusions Regarding Extreme Weather. "With the incorporation of design measures described above, extreme weather is not considered likely to have a significant adverse effect on the project" Question: have you even read the beginning of the report? What design measures? There is discussion of appropriate design measures but not really any specific detail? So just the good word from WLNG to trust that "it's all good".	Project Design Measures	Site specific wind, wave, flood and tsunami studies have been undertaken and appropriate design measures implemented accordingly including appropriate elevation of the LNG facility, Mill Creek bridge crossings designed for the 1:200 year peak instantaneous flood event, foreshore protection berm implemented for additional wind, wave and storm protection of critical plant facilities.
247	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Section 12.0 states that (source: appendix 5.8-1) that in addition to flooding from streams, there is potential for storms during high tides to cause ocean flooding of portions of the project area, particularly when combined with high winds. 12.3.2.3 If Mill Creek, Woodfibre Creek or marine waters were to overtop their banks & enter the area where the project components are located this could result in adverse effects to project components including physical damage or undermining. But based on modelling & calculations it is considered unlikely that flooding will occur in the project area. Question: does that mean that WLNG guarantees or simply hopes the second scenario mentioned will not occur. Who bears the liability should the modelling not be accurate? Maybe like the earthquake that happened in Squamish?	Effects of the Environment on the Project	 Section 12.3.2.3 describes the potential effects of the environment on the Project; however, mitigation measures will be implemented to reduce or avoid those effects. Mitigation measures that will be implemented include: Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek. Buildings will be constructed at different elevations that correspond to their risk category in case of flooding. Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction. Project components will be designed to accommodate a sea level rise of 0.5 metres.

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248	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	"Notlikely", "not anticipated", "not considered likely" is not very reassuring when WLNG refers to potential hazardous events. Is that type of reassurance and the wonderful, "design will be up to professional standards" be enough for those at the EAO to sign on to this project?	Environmental Assessment Methodology Project Design Standards	The terms used in the Application regarding likelihood are consistent with the BC EAO Guidelines for the Selection of Valued Components and Assessment of Potential Effects ¹⁸ .
249	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	Section 12.0 / 12.3.3.1 Description of Event BC experiences more than 1200 earthquakes annually, 300 of which occur in the Lower Mainland and on Vancouver Island (Knight Piesold 2014) The seismic hazard along the west coast of BC is significant due to earthquakes that occur along offshore faults and within the subducting Juan de Fuca tectonic place in the Cascadia subduction zone. There is potential for very large earthquakes 8.0 - 9.0. Evidence indicates great subduction earthquakes occur on average about every 500-600 years but this interval varies about 300-800 years. That pretty well nails it down. Tsunamis are generated by earthquakes in the Strait of Georgia or from landslides or river delta failures within Howe Sound. May I remind you that Woodfibre is on two faults. An earthquake with a magnitude substantially greater than the project design earthquake could result in damage to project components that could not be restored, either technically or economically. Question: then why would anyone with commonsense even think about building this hazardous facility in Howe Sound? Especially keeping in mind all the other hazardous events that could occur and the only reassurance WLNG gives all of living here isdon't worrybe happyit's unlikely it will occur and anyway the design of the project will be professional.	Seismic Hazard	 Woodfibre LNG is designing and building a facility that prevents or minimizes the potential effects of geotechnical and natural hazards. Third party independent experts have conducted a detailed investigation and review of geotechnical and natural hazards of the Woodfibre site. The Project will be designed: For a one in 2,475 year earthquake. To address the potential for liquefaction, ground improvements will be undertaken as part of Project construction and if deemed necessary, critical infrastructure will be moved to other locations within the project site If a ship is at dock at the time of a seismic event, and the movement between the LNG carrier and the floating storage and offloading unit (FSO) is outside safe operating parameters, the LNG transfer will safely shutdown and release the LNG carrier from its mooring and allow it to naturally move away from the FSO with assistance from the tugs on standby. Seismic monitors will be installed on critical process equipment and linked to the facility's ESD (Emergency Shutdown System). Should a seismic event occur, and the vibration experienced is outside the designed parameters of the seismic monitors, the facility (via the ESD) will automatically trip and place itself in fail-safe mode.

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¹⁸ British Columbia Environmental Assessment Office (EAO). 2013. Guidelines for the Selection of Valued Components and Assessment of Potential Effects. Available at: http://www.eao.gov.bc.ca/ pdf/EAO_Valued_Components_Guideline_2013_09_09.pdf

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250	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	12.3.3.3 Consequences and likelihood of Occurence Results from a seismic risk study undertaken by WLNG suggest an earthquake of a large magnitude is negligible. Question: what would be the damage to WING and surroundings in this negligible event? Liquefaction is a dramatic loss of soil strength that can occur in saturated coarse-grained soils during seismic shaking. Liquefaction of onshore and offshore soils could lead to rapid loss of strength, lateral movements and instability resulting in mass movement and settlements. These events could affect the Project area and surrounding area and result in substantial damage to the project infrastructure as well as pose a risk to people. Question: so assuming the event occurs and the damage to the project takes place just how extensive might it be. Would there be explosions? And how far would the blast circle be?	Seismic Hazard	 The sentence referenced in Section 12.3.3.3 refers to an earthquake of magnitude greater than the design earthquake (one in 2,475). Section 12.3.3.5 of the Application concludes that with the implementation of the design measures, seismic events are not likely to have a significant adverse effect on the Project. The Project will be designed: For a one in 2,475 year earthquake. To address the potential for liquefaction, ground improvements will be undertaken as part of Project construction and if deemed necessary, critical infrastructure will be moved to other locations within the project site If a ship is at dock at the time of a seismic event, and the movement between the LNG carrier and the floating storage and offloading unit (FSO) is outside safe operating parameters, the LNG transfer will safely shutdown and release the LNG carrier from its mooring and allow it to naturally move away from the FSO with assistance from the tugs on standby. Seismic monitors will be installed on critical process equipment and linked to the facility's ESD (Emergency Shutdown System). Should a seismic event occur, and the vibration experienced is outside the designed parameters of the seismic monitors, the facility (via the ESD) will automatically trip and place itself in fail-safe mode.
251	February 22, 2015	Mona Helcermanas- Benge - West Vancouver, Horseshoe Bay, British Columbia	The unconsolidated fluvial materials and fan/delta deposits within and adjacent to the project area have potential for liquefaction in the event of a large magnitude earthquake. This would introduce unacceptable risk of excessive settlements, ground movements and slope instability, each of which have the potential to damage project facilites. Question: Since there are also two faults under Woodfibre, why would anyone invest in this project location, why would any corporation insure it and why would the BC EAO endorse/approve this application?	Seismic Hazard	Woodfibre LNG is designing and building a facility that prevents or minimizes the potential effects of geotechnical and natural hazards. Third party independent experts have conducted a detailed investigation and review of geotechnical and natural hazards of the The Project will be designed for the one in 2,475 seismic event in accordance with the BC and National Building Codes. To address the potential for liquefaction, ground improvements will be undertaken as part of Project construction and if deemed necessary, critical infrastructure will be moved to other locations within the project site
252(i)	February 23, 2015	Cheryl Cameron - Eagle Harbour, British Columbia	 I live in Eagle Harbour, on the waterway of the proposed LNG tanker route. Please answer the following questions: Please describe in detail the procedure that will be followed with regard to refueling of the tankers, including where the bunker rule will come from, how it will be transported, and how and where the refueling takes place. 	Fuel Source for LNG Carriers	Thank you for your comments. The LNG carriers that would travel to and from the Woodfibre LNG project will primarily use the boil off gas (methane) that they are transporting as fuel. In the unlikely event of a spill, LNG does not pollute water. It turns back into a gas and quickly dissipates. LNG carriers have robust containment systems and double hull protection, and they can carry bunker fuel as a back-up fuel. LNG carrier companies would be required to be members of Western Canada Marine Response Corporation (WCMRC), and WCMRC would be activated in the unlikely event bunker fuel from a carrier was spilled into the marine environment. Refuelling and bunkering for the LNG carriers will occur outside of Howe Sound, and will be the responsibility of the LNG carrier owners.

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252(ii)	February 23, 2015	Cheryl Cameron - Eagle Harbour, British Columbia	 In the case of an emergency at the LNG plant, where is the emergency mooring for the LNG tankers? Please describe in full details what provisions are being made. 	Emergency Moorage	Due to lack of specific LNG anchorages within Canadian waters, LNG carriers will delay or defer their passage into Canadian waters if it is apparent their regular turnaround cannot be maintained, either due to weather or unplanned maintenance needs on the vessel or at the terminal. In case of an unplanned maintenance event at the terminal that cannot be resolved while the LNG carrier is at the berth, the LNG carrier would be evacuated from the berth and escorted out of Canadian waters until the terminal issue is resolved or rectified.
252(iii)	February 23, 2015	Cheryl Cameron - Eagle Harbour, British Columbia	 The salt-water flow-through cooling system has been banned in California. How does our situation in Howe Sound differ from that which led to the ban in California? And if it does not differ, how can this cooling system be considered for use in Howe Sound? You state that all sea life which is sucked in to the cooling system will be destroyed, but that this destruction os sea larvae, small fish and invertebrates will be mitigated. Please describe in detail what mitigation is planned, and quantify the effects of this mitigation. 	Seawater Cooling System	 Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. California did not ban seawater cooling. Section 316(b) of the US Clean Water Act requires the Environmental Protection Agency (EPA) to issue regulations on the design and operation of intake structures, in order to minimize adverse environmental impacts¹⁹. The EPA brought regulations govern the controls that must be in place at new and existing plants related to entrainment and impingement of marine organisms. All discharges to the marine environment will meet or exceed applicable legislation and guidelines, including the BC Water Quality Criteria (marine and estuarine life), the Canadian Environmental Quality Guidelines (water quality guidelines for the protection of aquatic life – marine), and the Fisheries Act. The seawater cooling system will require a waste discharge permit under section14 of the <i>Environmental Management Act.</i> Woodfibre LNG Limited is legally required to comply with all requirements as outlined in the permit. In the absence of mitigation measures, the assessment of the potential effects of the seawater cooling system assumes the mortality rate of organisms that become impinged or entrained will equire habitat, conducted in the absence of mitigation measures. Mitigation measures that will be incleaded to mitigate effects associated with entrainment or impingement: The intake will be located in deep water (greater than 25-m depth), below the photic zone; consequently, effects to marine vegetation (macroalgae) are not likely. The intake will be located 2 m above the seafloor to reduce the potential for entrainment or impingement: The intake will be located 2 m ab

¹⁹ Source: http://water.epa.gov/lawsregs/lawsguidance/cwa/316b/upload/Final-Regulations-to-Establish-Requirements-for-Cooling-Water-Intake-Structures-at-Existing-Facilities.pdf

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					• The intake screen will contain a minimum of 50% open screen area as a percentage of the total screen area to maintain average through-screen velocity."
					The intake will be sited away from subtidal rock reefs containing significant abundances of macrophytes that provide nursery habitat for juvenile fish and benthic invertebrates. Entrainment of plankton and larvae will potentially occur as a result of the water intake demands for the LNG cooling process. The implementation of mitigation and environmental design features will further reduce entrainment and impingement associated with the intake. As a result measurable changes in the distribution of native marine species relative to baseline conditions are not likely."
					Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please also refer to the Seawater Cooling System and Marine Mammal Information Sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.
					Thank you for your questions.
					The presence/absence of marine mammals in Howe Sound and close to the Project area were determined based on 13 years of sightings records from the BC Cetacean Sightings Network, and further supported by information in available scientific literature and government reports.
253	February 23, 2015	Dolores Dawson - West Vancouver, British Columbia	Have there been multi-season studies to determine current populations of migratory and resident orcas, dolphins, grey whales, humpback whales, seals, and sea lions in Howe Sound? Do these include recent trends showing increased visitations and increasing populations? How ahem baselines been set for these populations? What studies have been done to determine the amount of underwater noise generated from the land hased LNG facility, the floating storage and	Environmental Assessment Studies	An assessment of the potential effects of the Project on marine mammals is included in Section 5.19 Marine Mammals, and includes an assessment of the effects of noise. Woodfibre LNG Limited will retain a contractor to perform underwater acoustic monitoring for pre- during and post project construction. The underwater monitoring will collect underwater sound levels and marine mammal presence (e.g., of those species present, their frequency and seasonality). This will contribute further to baseline information for both underwater sound levels and mammal presence in the project area and in the vicinity of the Project Site to monitor potential changes of marine mammals over time.
		Iand-based LNG facilit offloading unit, and LN evidence is there as to noise on marine mami	offloading unit, and LNG tankers and tugs, and what evidence is there as to the effects of this underwater noise on marine mammals?	LNG tankers and tugs, and what s to the effects of this underwater ammals?	Potential effects of underwater noise from the Project on marine mammals are assessed by comparing Project underwater noise levels (or suitable proxies) against established acoustic thresholds for marine mammals and fish, and not in direct comparison to ambient noise levels (as with other disciplines such as atmospheric noise or water quality). Ambient noise levels would be well below the established injury thresholds for marine mammals, which are the thresholds applied during mitigation and management planning.
					Please also refer to the Marine Mammals information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.

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254(i)	February 23, 2015	Personal Information Withheld	February 5, 2015 Environmental Assessment Office PO Box 9425 Stn Prov Govt Victoria BC V8W 9V1 Dear Mr. Shephard, As the owners of a property in West Vancouver, north of Horseshoe Bay, we are writing to address our concerns about the upcoming Woodfibre LNG Project near Squamish,. We are opposed to this significant industrial development for the following reasons. 1) Safety There are risks involved in the processing and transport of this natural gas. Even though the probability of an accident is low, it can have disastrous consequences not only to this narrow Howe Sound, with residential homes and marine life, but also to the greater metropolis of Vancouver. Even if an accident only happens every few decades, the tragic consequences may take decades to recover. The shipping lanes also pass by a very populated area.	Safety	Thank you for your comments. Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and Gas Activities Act and the associated Liquefied Natural Gas Facility Regulation, national and BC building codes, as well as national and international standards, guidelines and codes of practice where there are no applicable codes for BC. Liquefied natural gas has been shipped safely around the world for more than 50 years. There has never been a recorded incident involving a loss of containment of an LNG carrier at sea. LNG carriers are among the most modern and sophisticated ships in operation. These ships have robust containment systems, double-hull protection and are heavily regulated by international and federal standards. In the unlikely event there is a spill from an LNG carrier, LNG will never mix with water. Instead, it will quickly return to a gas state, and because methane is lighter than air, the gas will dissipate. The Accidents and Malfunctions section (Section 11.0) of the Application assessed the consequence and frequency of effects resulting from credible worst case scenarios for the Project. It showed that potential risks to the public were within the tolerable risk criteria regulated by the BC Oil and Gas Commission (OGC). The OGC will include a review of the quantitative risk assessment for this Project in the permit application review to confirm that the study and results meet the regulated requirements. Additional information on accidents and malfunctions was provided to the EAO on April 29, 2015. Subject to the recommendations of Transport Canada Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL), Woodfibre LNG would deploy at least three tugs, at least one of which will be tethered, to provide a dynamic safety awareness zone would extend up to 50 meters on either side of the vessel and up to 50 meters on either side of the vessel and up to 50 meters on the t

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254(ii)	February 23, 2015	Personal Information Withheld	2) Tourism The Sea to Sky Highway from Vancouver to Whistler is known Internationally as a magnificent scenic area. Such an industrial complex as this will be a major blemish and eyesore on this route with visitors then considering other areas to visit, ignoring Whistler. In essence such a toxic development may adversely affect tourism revenue, which is very important in this area. Any accident will only harm tourism further	Effects of the Project on Tourism	 Woodfibre LNG Limited is of the view that the Woodfibre site is the right fit for an LNG facility. It features: zoned industrial, more than 100 years of industrial use, deepwater port, access to BC Hydro transmission grid, and access to labour force. Woodfibre LNG Limited is also of the view that tourism and industry can work together to create responsible economic development in Squamish. BC Ferries and Squamish Terminals have shown how industry can successfully coexist with local tourism and recreation, and Woodfibre LNG Limited is working hard to follow that example. An assessment of the potential effects of the Project on tourism is included in Section 6.2 Labour Market and Section 6.3 Sustainable Economy. The Application concluded that there were no Project-related significant adverse residual effects to the economy. The Project's visual effects are expected to be minor given their scale and the historical and current level of human-related disturbance within the Regional Assessment Area. Mitigation measures have been developed to avoid, minimize, restore onsite or offset the potential adverse effects of the Project. Mitigation measures that would be implemented to reduce the visibility of the facility would include the following: reducing the level of contrast of buildings by using external surface finishing that has low glare and natural colours monitoring and maintaining natural screening to ensure minimal visibility of infrastructure providing additional screening of land-based infrastructure through temporary or permanent plantings where possible and safe to do so For more information, please see Section 7.5 Visual Quality of the Application, which includes an assessment of the potential effects of the Project on the viewscape.
254(iii)	February 23, 2015	Personal Information Withheld	3) Economics The plant is owned by a Singapore Company, with the natural gas being shipped overseas. Granted there may be some local taxation for the immediate area and BC, but often major corporations and businesses are often very skillful in reducing or avoiding taxes. In brief, the benefits will be for people outside of Canada, with little benefit for Canadians, who have to accept the risks.	Economic Benefits of the Project	 The Woodfibre LNG Project is owned by Woodfibre LNG Limited, a privately held Canadian company based in Vancouver with a Community Office in Squamish. Woodfibre LNG Limited is a subsidiary of Pacific Oil and Gas (PO&G) which develops, builds, owns and operates projects throughout the energy supply chain. Woodfibre LNG Limited intends to operate in a manner consistent with its core values of a triple bottom line approach, where results benefit the community, the country and the company. Woodfibre LNG Limited will pay a variety of taxes, including income tax, LNG tax, and municipal property tax. Woodfibre LNG will comply with all applicable regional, provincial and federal laws, regulations, guidelines and standards including but not limited to: employment standards; health and environmental regulations and standards; taxation; and, First Nations agreements.

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254(iv)	February 23, 2015	Personal Information Withheld	4) Environmental Toxic spills from the plant and well as tanker accidents have to be considered.	Safety	At Woodfibre LNG, safety is the number one priority. Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and Gas Activities Act and the associated Liquefied Natural Gas Facility Regulation, national and BC building codes, as well as national and international standards, guidelines and codes of practice where there are no applicable codes for BC. The Accidents and Malfunctions section (Section 11.0) of the Application assessed the consequence and frequency of effects resulting from credible worst case scenarios for the Project. It showed that potential risks to the public were within the tolerable risk criteria regulated by the BC Oil and Gas Commission (OGC). The OGC will include a review of the quantitative risk assessment for this Project in the permit application review to confirm that the study and results meet the regulated requirements. Additional information on accidents and malfunctions was provided to the EAO on April 29, 2015. During operation, major accidents at LNG facilities are very rare. LNG is not explosive in an unconfined environment. Two fire / vapour cloud explosions at LNG facilities are known to have occurred in the past 60 years. A vapour cloud and fire in Ohio occurred in 1944 because of leaks from an LNG tank constructed from inappropriate material, and in 2004 an explosion occurred in Algeria because of a steam boiler problem (boilers are not part of the Project design). Standards for modern LNG facilities have benefited from the lessons learned from these accidents. Please also refer to Public Safety information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.

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254(v)	February 23, 2015	Personal Information Withheld	There is also the issue of the plant consuming considerable amounts of seawater for cooling. This water will receive sodium hypochlorite, and then be discharged back into the sound at a higher temperature. Such chemicals and elevated temperatures must be considered as a hazard to marine life.	Seawater Cooling System	Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. All discharges to the marine environment will comply with applicable legislation and guidelines, including the BC Water Quality Criteria (marine and estuarine life), the Canadian Environmental Quality Guidelines (water quality guidelines for the protection of aquatic life – marine), and the Fisheries Act. The seawater cooling system will require a waste discharge permit under section 14 of the <i>Environmental Management Act.</i> Woodfibre LNG Limited is legally required to comply with all requirements as outlined in the permit. The seawater cooling system will be designed to meet BC water quality guidelines. The release temperature of the seawater will be less than 21°C or 10°C above ambient water temperature of Howe Sound, whichever is less. Near-field simulation modeling shows that, with a release temperature of 10°C greater than the ambient temperature, the total volume of water that would have a temperature greater than 1°C above ambient is 125 m ³ (for context, this volume will not increase over time. Residual levels of chlorine at the discharge ports will be less than 0.02 mg/L. This is much less than the chlorine in drinking water, which is approximately 0.04 mg/L to 2.0 mg/L. For more information on the effects of the Project on marine water quality please refer to Section 5.10 Marine Water Quality. Additional components of the marine environment that have been assessed include Freshwater Fish and Fish Habitat (Section 5.15), Marine Benthic Habitat (Section 5.16), Forage Fish and Other Fish (Marine) (Section 5.18) and Marine Mammals (Section 5.19). A summary of the residual and cumulative environments to mitigation measures are included in Section 21.0 Summ
254(vi)	February 23, 2015	Personal Information Withheld	5) Expansion There is always a concern for expansion. Once this project is approved, it is very difficult to prevent further expansion. It is proposed that there will 3-4 tankers per month, but then the number may expand. There is a proposal for 2 storage tankers to be docked at the site, and this may increase. Once a foot is in the door, turning back is impossible. We are surprised that BC, which is environmentally conscious would consider such a development in a populated, magnificently scenic, and popular tourist area.	Project Expansion	The number of LNG carriers visiting the site will correspond to the export capacity of the Woodfibre LNG Project. The volume of LNG authorized to be exported from the Project is established by the Export License associated with the Project (Licence GL-304). Accordingly, Woodfibre LNG has estimated the number of LNG carriers visiting the site to be 40 LNG carriers per year.

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			In summary, the major hazards and significant disadvantages of this project far overwhelm any advantages and should not be approved.		
255	February 24, 2015	Sean Beeson - Fort Nelson, British Columbia	This project creates job on the island all the way to the gas fields. I fully support projects that help our economy!	LNG Project	Thank you, this comment is noted.
256	February 24, 2015	Personal Information Withheld - Squamish, British Columbia	I am glad to see a detailed application. I feel that the public comment period is more than adequate to review the entire application.	Environmental Assessment Application	Thank you, this comment is noted.
257	February 24, 2015	Paul Milley - North Vancouver, British Columbia	My family has enjoyed a cottage on Keats Island for the past 25 years. In that time we have noticed significant improvements in air and salt water quality as Port Mellon has upgraded, Woodfiber has closed down and the copper mine has stopped leaking into Howe Sound. With these improvements we have witnessed and celebrated increased bird activity along with much more fish and marine life of all sorts. Now as the sound is recuperating we begin to see an increase in industrial activity and we do not want to see a return to what we had 20 years ago. My concern is that while this project on its own appears reasonable, the population of greater Vancouver continues to grow and put more pressure on natural areas like Howe Sound. Therefore we need to be extra vigilant to understand and monitor projects like this. Experience indicates that developments like this tend to attract more development and expand themselves over time. While I appreciate the value of such a deve lopment to our local and provincial economy I believe even more strongly that such development should not be accepted with a negative impact on the environment that is now moving in positive directions. Therefore all costs must be considered in the accounting for this facility and limits enforced on future growth with rigorous monitoring and supervision. Since I have limited understanding of the technical issues and risks with an LNG plant it is important that strong regulation and enforcement be in place and all these expenses covered by the developers who will see most of the benefits and not the tax payers. Appropriate communication of how this will be done and allocated will be helpful.	Regulatory Requirements	Thank you for your comment. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. Should an Environmental Assessment Certificate be granted for the Project, a Table of Conditions will be developed that outlines all of the requirements with which the Project will have to comply. Woodfibre LNG Limited will be legally responsible for ensuring all conditions are met. The Project will also require a Facility Permit, Leave to Commence Construction and Leave to Operate from the Oil and Gas Commission as well as numerous other environmental permits.

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258	February 24, 2015	Personal Information Withheld - Squamish, British Columbia	Dear Sir or madam I'm writing to voice my concerns with regards to the Dispersion Meteorology study that was done for the WoodFibre LNG project. My concern is the lack of meteorological stations involved in the baseline study. CALMET was executed in no-observation mode, therefore Fifth-Generation NCAR/Penn State Mesoscale Model (MM5) was used in the initial guess field. The MM5 model domain of 86 km by 84 km running on 32 km resolution. In the entire MM5 domain there are four stations stated in section 2.2 of the Study. One of the stations did not meet the criteria for a 90% of data completeness to be a part of the assessment. That station was located in downtown Squamish. This would have been valuable to the case study. The other stations used in the study are Pam Rock in the middle of Howe Sound, Port Mellon and Squamish Airport. Pam Rocks & Port Mellon stations are over 30 km away from Squamish. Other stations that could of been used in the MM5 are Sechelt, West Vancouver and Point Atkinson. In the study it is noted that there are data problems with CALMET and Pam Rocks predictions. This makes me question the performance of the MM5, CALMET and CALPUFF. This study was done with out the use of upper air data. Upper air data is required by most model outputs. CALMET is a useful tool for estimating horizontal wind fields under conditions of significant spatial and temporal variability. The model is likely to perform best when observation sites are sufficiently numerous to resolve characteristic local flows and when the model has been tuned to optimally combine available upper-air and surface measurements for a given region. Without a very high density of surface and upper-air observations, however, it seems unlikely that the model will be very successful in reproducing the vertical wind field. The nearest upper air station is near the areaa in Quillayute in Washington state. Other concerns I have are with stagnation Conditions. It's noted in this baseline meteorology	Air Quality Dispersion Modelling	Thank you for your comment. The CALMET model was run in no-observations mode because there were no representative meteorological data in the Project valley. This approach was signed off by the BC Ministry of Environment. The Project is located within Howe Sound, so Pam Rocks, Langdale Ferry Terminal, and Port Mellon were chosen for the CALMET validation. Sechelt, West Vancouver and Point Atkinson also were considered, however, they are located outside of Howe Sound and were not as critical for the validation of CALMET. While Quillayute is the closest upper air station to the project, the data would only be valid at the upper levels of the modelling domain. The observations at lower levels of the atmosphere would not be representative of the Project area. Therefore, using the observations from this station was not considered beneficial. Figure 25 of Appendix 5.2-2 provides the frequency of occurrence of stable, neutral and unstable conditions in the project area. Stable conditions would conicide with stagnant conditions and were predicted to occur 25% of the time in a given year. The figure results indicate stable conditions are most dominant at night between 9 pm and 4 am. Stable or stagnant conditions and summer.

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259	February 25, 2015	Personal Information Withheld - Garibaldi Highlands, British Columbia	I am for the proposed WLNG Project. I believe an injection of safe industry is needed in the community and WLNG meets that criteria.	LNG Project	Thank you, this comment is noted.
260(i)	February 25, 2015	T. Carroll - Squamish, British Columbia	I am AGAINST the WOODFIBRE LNG PLANT AND AGAINST THE LINKED FORTIS PIPELINE. Neither is appropriate or safe for Squamish, Howe Sound and their environs. Neither should be approved. 1. First of all it is wrong to locate and position the Fortis BC Compression Station in what is within the city limits of Squamish. It is extremely hazardous, and should an "incident" (leaks, explosions) occur, not only will the localized businesses suffer but many, many local citizens who either work in that area or live in close proximity. Do you remember Lac Megantic? Or the recent explosions in various U.S. states? Safety issues seem largely to have been negated. Why is the Precautionary Principle not being adopted? The hazardous position of this proposed Fortis Compression Plant is also aggravated by the fact that is at considerable distance away from the local Fire Station, the RCMP, the Search and Rescue, the BC Ambulance stations and Squamish Hospital. IF a large (or even small'ish) scale incident (i.e. earthquake, floods, fire, or other industrial accident occur which damages the pipeline, compression station or any other component parts), is it not highly likely that the proximity of the compression station and its increased gas flow to the site would raise the risk and dangers for Squamish First Emergency Response teams? Would that not undermine and compromise their integrity? Why are these hazards, and risks not be considered and calculated? How quickly would they be able to respond? what would be the impacts on the human population, apart from the overall environment? Again why is not the Precautionary Principle being invoked?	Pipeline and Compressor Station	Woodfibre LNG notes that the comment is directed to the Fortis BC Eagle Mountain Pipeline Expansion Project. FortisBC's Eagle Mountain – Woodfibre Gas Pipeline Project is undergoing a separate environmental assessment certificate application review process. Please see EAO website for more information: http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406 _38521.html

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260(ii)	February 25, 2015	T. Carroll - Squamish, British Columbia	2. Also being next to gas pipelines and compression plants - and LNG plants - will Decrease Property Values. That is well known (please review the studies that show that proximity to gas pipelines or compression stations A quick Google search shows many, many studies on the subject>> >> https://www.google.ca/search?q=proximity+of+ pipelines+decreases+property+values&ie=utf- &&oe=utf- &&gws_rd=cr&ei=zPHHVK7vMMHgoASEx4Dg BQ) Property values will drop considerably, and local residents who are tax-payers, like myself and my neighbours, will move away. That in itself will reduce the property taxes, and hence overall income, available to the District of Squamish. Will the WF LNG plant and Fortis facility, heavily subsidized already by both the Provincial and Federal Governments, compensate the District, and the Howe Sound area, for those property tax reductions and losses? Have those been factored into the actual costs, versus the so-called benefits? To date the financial analysis of this combined project has been faulty if not actually sloppy. Will you undertake an in-depth Cost/Benefits Analysis, taking into account such factors as hose mentioned above? If not, why not?	Effects of the Project on Real Estate Pipeline	Woodfibre LNG notes that the comment is directed to the Fortis BC Eagle Mountain Pipeline Expansion Project. FortisBC's Eagle Mountain – Woodfibre Gas Pipeline Project is undergoing a separate environmental assessment certificate application review process. Please see EAO website for more information: http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406 _38521.html Woodfibre LNG offers the following information about the Woodfibre LNG Project. The Project site is accessible by water only, and there are no permanent residences or private property adjacent to or within several kilometres of the Project site. Real Estate Value was not selected as a valued component as the Project site is zoned for industrial use and a change of land use designation and zoning is not required.

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260(iii)	February 25, 2015	T. Carroll - Squamish, British Columbia	3. To date the proponents have minimized the possibility of an industrial accident at the WF LNG plant itself, not to mention the Fortis compression plant. Will you be undertaking an in-depth ssurvey of the number of accidents that have actually occurred at similar facilities in the USA, Canada, and other countries. If not, why not? Please take a quick Google search to see the number of accidents at plants like this are very common and damage to the surrounding area is significant and measurable. https://www.google.ca/search?q=lng+plant+acci dents&ie=utf-8&gws_rd=cr&ei=cfPHVKnvEo7coASI9YEY It would be the height of irresponsibility to fail to look at and assess what has happened in other jurisdictions, which have gone the route the BC Government wants Squamish to take. And then to share that data and information with the residents of Squamish & Howe Sound.?	Safety	At Woodfibre LNG, safety is the number one priority. Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and Gas Activities Act and the associated Liquefied Natural Gas Facility Regulation, national and BC building codes, as well as national and international standards, guidelines and codes of practice where there are no applicable codes for BC. The Accidents and Malfunctions section (Section 11.0) of the Application assessed the consequence and frequency of effects resulting from credible worst case scenarios for the Project. It showed that potential risks to the public were within the tolerable risk criteria regulated by the BC Oil and Gas Commission (OGC). The OGC will include a review of the quantitative risk assessment for this Project in the permit application review to confirm that the study and results meet the regulated requirements. Additional information on accidents and malfunctions was provided to the EAO on April 29, 2015. During operation, major accidents at LNG facilities are very rare. LNG is not explosive in an unconfined environment. Two fire / vapour cloud explosions at LNG facilities are known to have occurred in the past 60 years. A vapour cloud and fire in Ohio occurred in 1944 because of leaks from an LNG tank constructed from inappropriate material, and in 2004 an explosion occurred in Algeria because of a steam boiler problem (boilers are not part of the Project design). Standards for modern LNG facilities have benefited from the lessons learned from these accidents. Woodfibre LNG notes that the comment about the compressor station is directed to the Fortis BC Eagle Mountain – Woodfibre Gas Pipeline Project. FortisBC's Eagle Mountain Pipeline Expansion Project. FortisBC's Eagle Mountain – Woodfibr

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260(iv)	February 25, 2015	T. Carroll - Squamish, British Columbia	4. Even if the old Wood Fibre site is remediated or mitigated, how deep will the remediation go? Who monitors the remediation to make sure it is done properly & thoroughly? What happens to contaminated materials found at the site, such as where are they disposed of? The original Wood Fibre site was not only unsightly, it stank badly, and its awful smells permeated not only Squamish but the whole of the valley and into Howe Sound. The last 10-15 years have seen an infinite improvement, now threatened by the WF LNG and Fortis compression plants. What will be done to ensure that the proposed LNG facility & the Fortis compression plant are not only NOT ugly & unsightly but also do NOT pollute the air and stink up their surroundings? What mechanisms will be put into place to ensure that these sites do NOT detract from the present beauty of Squamish and Howe Sound? Have any studies been undertaken to show that reversion back to the old-style Wood Fibre, dirty & smelly industry will substantially and simultaneously undermine the new, clean, fast-burgeoning and profitable tourism, outdoors, entertainment, film, high/green tech businesses, and consultancies businesses, (viz. the new attraction of the Gondola and its Summit restaurant was one example)?	Remediation Effects of the Project on Air Quality, Visual Quality	The Woodfibre site has been used for industrial purposes for 100 years and is zoned for industrial use. Woodfibre LNG's purchase of the property was contingent on its former owner, Western Forest Products (WFP), obtaining a Certificate of Compliance (COC) from the BC Ministry of Environment (MOE). On December 22, 2014, the MOE issued two COCS for the Woodfibre property. The COCs confirm that WFP has cleaned up the site to acceptable contaminant levels and existing site contamination does not pose an ecological or human health risk. These COCs include conditions related to monitoring and management of residual contamination, and reporting requirements that must be undertaken by a BC MOE Approved Professional. As part of the COC process, contaminated upland soils were remediated and the historical on-site asbestos disposal area was closed. To improve fish habitat off the Woodfibre site, approximately 4,900 m ³ (490 dump truck loads) of historic wood was used as structural fill in the onsite landfill. The landfill on the Woodfibre property is a permitted sanitary landfill with a leachate treatment system. Hazardous materials were, and would in future be, transported offsite and disposed of at a permitted facility. Woodfibre LNG Limited intends to perform additional remediation and restoration in the Project area. Plans for additional remediation include the removal of approximately 3,000 existing creosote-coated piles from the waterfront in the Project area and the creation of a Green Zone around Mill Creek. This work will be carried out in partnership with the local groups, where suitable, so that local conservation and restoration targets can be met (please refer to Section 2.6.7 Ecological Benefits of the Application). There is no dour associated with LNG facilities. The dodur associated with natural gas is an additive called mercaptan, which is a safety feature to warn of potential leaks in homes and businesses. The additive is removed from the natural gas before it is liquefied, and does not produce odours a

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					visibility of the facility would include the following:
					 reducing the level of contrast of buildings by using external surface finishing that has low glare and natural colours
					 monitoring and maintaining natural screening to ensure minima visibility of infrastructure
					 providing additional screening of land-based infrastructure through temporary or permanent plantings where possible and safe to do so.
					For more information, please see Section 7.5 Visual Quality of the Application, which includes an assessment of the potential effects of the Project on the viewscape, including from the Sea-to-Sky Gondola. Woodfibre LNG has consulted directly with representatives of the Sea-to-Sky Gondola to address concerns associated with that viewscape and to consider potential mitigation measures.
					An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment.
					Woodfibre LNG notes that the comment about the compressor station is directed to the Fortis BC Eagle Mountain Pipeline Expansion Project. FortisBC's Eagle Mountain – Woodfibre Gas Pipeline Project is undergoing a separate environmental assessment certificate application review process. Please see EAO website for more information:
					http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406
					<u>_38521.html</u>
					Please also refer to the Air Quality and Sustainable Economy information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.

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260(v)	February 25, 2015	T. Carroll - Squamish, British Columbia	5. Squamish is part of the world's southernmost fjord and part of the Salish Sea - a place of great biodiversity, which was almost totally wiped out by the original contaminating Wood Fibre plant and Britannia Beach mine. It is now recovering in an amazing way, in a way that is attracting tourism, clean tech industries, arts & culture, film & entertainment, boating and a myriad of water activities, etc The marine life is returning - orca, turtles, salmon,herring, shell fish, plus over 230 varieties of birds and some key mammals. It is a repository of the endangered & unique glass sponge corals. The proponents minimize the likely reversal of these positive trends and recovery of different species as well as the health of the whole Howe Sound & Salish Sea. Yet to date no in-depth studies, by independent experts/scientists, have been undertaken to show that these various species will NOT once again be put at severe risk, including being wiped out, whether du e to water & land sounds, lights, pollution, poisons, soil erosion, etc. Once again the Precautionary Principle should be invoked and in-depth studies undertaken to show the impacts that the 2 proposed facilities will have on the entire biodiversity of the Howe Sound and Squamish. Will such independent, detailed studies be undertaken? By whom? When? If not, why not? Will the improvements are reversed, as a consequence of WF LNG & Fortis pipeline, with consequent detrimental economic impacts on Squamish residents/businesspeople/tourism operators, etc., who will compensate them for those losses - the government, the proponents, the Feds, or insurance?	Effects of the Project on the Environment	Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community, and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. The Application for an Environmental Assessment Certificate prepared for the Woodfibre LNG Project was conducted according to the methodology of both the BC Environmental Assessment Act and Canadian Environmental Assessment Act (2012). Section 4.0 Environmental Assessment Methods of the Application describes the assessment process. The qualifications of the professionals involved in preparing the Application are listed in Table 2-1 Environmental Assessment Team. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. Should an Environmental Assessment Certificate be granted for the Project, a Table of Conditions will be developed that outlines all of the requirements with which the Project will have to comply. Woodfibre LNG Limited will be legally responsible for ensuring all conditions are met. The Project will also require a Facility Permit from the Oil and Gas Commission as well as numerous other environmental permits. The construction and operation of the Project will be regulated by the Oil and Gas Com

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260(vi)	February 25, 2015	T. Carroll - Squamish, British Columbia	6. Many commenters have stated that Squamish and Howe Sound are gems, possibly quite unique in the world. Placed between Vancouver and Whistler, Squamish offers a wonderful linkage between the two, helping to attract worldwide visitors, who definitely are not coming to view or smell Wood Fibre LNG & its "collaborator" (Fortis BC). These are the wrong developments for this region, & will actually undercut the economic benefits to those other two cities/towns. Have those costs been factored in? If not, why not? Why has not a Cost/Benefit Analysis of the detrimental impacts of the WF LNG & Fortis pipeline ON Vancouver and Whistler been undertaken? What will happen to the Gondola's visitors? And to the Squamish Valley Music Festival (expected to attract 40,000)? What will happen if visitors are turned off by the proposed LNG/pipeline projects, smells, & sights? Is it likely that the New York Times will again rank Squamish among its top 50 worldwide attra ctions to visit, as it did this year? I think that is highly unlikely, and the economic downside, as a consequence, will be considerable.	Effects of the Project on Tourism Pipeline	There is no odour associated with LNG facilities. The odour associated with natural gas is an additive called mercaptan, which is a safety feature to warn of potential leaks in homes and businesses. The additive is removed from the natural gas before it is liquefied, and does not produce odours at LNG facilities. Woodfibre LNG Limited is of the view that tourism and industry can work together to create responsible economic development in Squamish. BC Ferries and Squamish Terminals have shown how industry can successfully coexist with local tourism and recreation, and Woodfibre LNG Limited is working hard to follow that example. An assessment of the potential effects of the Project on tourism is included in Section 6.2 Labour Market and Section 6.3 Sustainable Economy. Both Vancouver and Whistler have been included within the assessment area. The Application concluded that there were no Project-related significant adverse residual effects to the economy. The Application assesses the potential effects of the Project to outdoor recreation in Section 7.4 Land and Resource Use. With the proposed mitigation, it is not likely that there will be significant residual effects to outdoor recreation. In addition, the Project's visual effects are expected to be minor given their scale and the historical and current level of human-related disturbance within the regional assessment area. Woodfibre LNG is designing the facility to reduce the size of the disturbance shave been developed to avoid, minimize, restore onsite or offset the potential adverse effects of the Project. Mitigation measures have been developed to avoid, minimize, restore onsite or offset the potential adverse effects of the Project. Mitigation measures that would be implemented to reduce the visibility of infrastructure • providing additional screening of land-based infrastructure through temporary or permanent plantings where possible and safe to do so For more information, please see Section 7.5 Visual Quality of the Application, which includes an assess

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260(vii)	February 25, 2015	T. Carroll - Squamish, British Columbia	7. The foreign ownership as well as the senior management of the WF LNG facility should be very, very carefully scrutinized by the EAO. Failure to do so could be tantamount to a dereliction of independent duty and responsibility, with respect to environmental practices, safety and pollution/contaminants issues, financial responsibility and transparency, and even human rights matters. Again, as part of the Precautionary Principle approach and strictly good, sound, healthy, and responsible investment and management practices, it seems that the EAO has a considerable responsibility in analyzing the history and practices of both the foreign owners and present management.	Corporate Ownership	The Woodfibre LNG Project is owned by Woodfibre LNG Limited, a privately held Canadian company based in Vancouver with a Community Office in Squamish. Woodfibre LNG Limited is a subsidiary of Pacific Oil and Gas (PO&G) which develops, builds, owns and operates projects throughout the energy supply chain. Woodfibre LNG will comply with all applicable regional, provincial and federal laws, regulations, guidelines and standards including but not limited to: employment standards; health and environmental regulations and standards; taxation; and, First Nations agreements.
260(viii)	February 25, 2015	T. Carroll - Squamish, British Columbia	 8. Like many others in Squamish, I am extremely concerned about the intrusive and invasive characteristics of the Fortis Pipeline, in conjunction with the WF LNG, into, under and/or through the Squamish Estuary Management area (SEMP), neighbouring protected areas and/or many provincial parks, plus the First Nations lands. All these areas have highly significant environmental, habitat/biodiversity, and cultural values that need to be thoroughly studied and understood, by truly independent experts. To date those independent, comprehensive studies are singularly lacking. Not knowing the impacts of these intrusive projects can and will have long-time deleterious effects. So it is better to know now what those impacts will be than to find out in 10, 20, 50 or 80 years times, when it will become too late to undo those impacts and consequences. Why should our children and descendants have to bear the brunt of our costly errors in fact and in judgement? Will such studies be recommended by the EAO and undertaken BEFORE the WF LNG and Fortis Pipeline are determined as desirable or allowable? If detailed, independent studies are not undertaken, why not? 	Pipeline	Woodfibre LNG notes that the comment about the pipeline is directed to the Fortis BC Eagle Mountain Pipeline Expansion Project. FortisBC's Eagle Mountain – Woodfibre Gas Pipeline Project is undergoing a separate environmental assessment certificate application review process. Please see EAO website for more information: <u>http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406</u> <u>_38521.html</u>

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260(ix)	February 25, 2015	T. Carroll - Squamish, British Columbia	10. Linked to Point 9. above, what sort of insurance and/or compensation will be put in place by the proponents, the overseas owners/corporations, tankers' companies, the provincial and/or Federal governments, should any one of those hazards come to fruition? Has a compensation fund and insurance fund been set up? For how much - for Squamish, Howe Sound, local individuals, local businesses? What will be the terms of those Insurance/Compensation Funds?	Liability	Both Woodfibre LNG Limited and the LNG carriers will carry appropriate levels of insurance, including coverage for any accidents, potential spills or discharge of pollutants, both marine and on-land. Woodfibre LNG Limited will ensure that LNG carriers destined for the Woodfibre LNG terminal will hold a valid contractual arrangement with the Western Canada Marine Response Corporation (WCMRC), under the <i>Canada Shipping Act 2001</i> Part I – Pollution Prevention and Response. Every vessel that is employed for Woodfibre LNG Limited will carry compulsory insurance for \$1 billion under the Civil Liability Convention (CLC) for oil pollution. In event of a pollution event, and after all reasonable steps have been taken to recover payment of compensation from the owner of the ship or if the owner of the ship is not liable by reason of any of the defenses described in subsection 77(3), Article III of the Civil Liability Convention or Article 3 of the Bunkers Convention, and neither the International Fund or the Supplementary Fund are liable or in the event the claim exceeds the owners maximum liability under the CLC Convention the liability will be covered by the Canadian Ship-source Oil Pollution Fund.
260(x)	February 25, 2015	T. Carroll - Squamish, British Columbia	Apart from one of the above hazards occurring, what about insurance/compensation for those humans who suffer HEALTH problems or worse from air, noise and light pollution? What about for the collapse of colonies of wildlife/birds (Squamish is on an Internal Flyway or Migratory Corridor!), and the demise of endemic mammalian species, which are part and parcel of the fabric of Squamish, its tourism, and expanding bird-watching population (the second largest tourism-dollar generator in N. America) ? The costs of these do not appear to have been factored in. Why not? Again, an independent study by hazard and insurance/compensation experts should be undertaken, to see if the apparent benefits truly outweigh the real costs. Will this be undertaken?	Effects of the Project on the Environment, Health	An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. Woodfibre LNG Limited conducted a human health risk assessment that quantifies potential health risks associated with the Project, such as those associated with air emissions. The conclusion of the risk assessment as set forth in Section 9.2 was that the Project will have negligible or not significant residual effects to human health. For more information, please see Section 9.2 Public Health.
260(xi)	February 25, 2015	T. Carroll - Squamish, British Columbia	11. There are many other issues which have not been adequately or thoroughly taken into account by, or which have been marginalized/minimized by, the WF LNG and Fortis proponents - fracking, cooling systems, possible expansion of the pipeline from a gas to an oil one, chemical leakages, possible explosions on land or water, climate change, rising waters in the Sound, subsidence of the WF site and soil slides, impacts on biodiversity, impacts on human health, overall climate change impacts, tankers and their consequences for the Howe Sound fjord and marine life, etc.	Assessment of LNG Project Hydraulic Fracturing	 Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Seawater Cooling System All discharges to the marine environment will meet or exceed applicable legislation and guidelines, including the BC Water Quality Criteria (marine and estuarine life), the Canadian Environmental Quality Guidelines (water quality guidelines for the protection of aquatic life – marine), and the <i>Fisheries Act</i>. The seawater cooling system will require a waste discharge permit under section14 of the <i>Environmental Management Act</i>. Woodfibre LNG Limited is legally required to comply with all requirements as outlined in the permit. The effects of the Project on marine water quality is assessed in

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					Section 5.10 Marine Water Quality. Additional components of the marine environment that have been assessed include Freshwater Fish and Fish Habitat (Section 5.15), Marine Benthic Habitat (Section 5.16), Forage Fish and Other Fish (Marine) (Section 5.18) and Marine Mammals (Section 5.19). A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project-related significant adverse residual effects to the environment.
					Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please also refer to the Seawater Cooling System information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
					Conversion of pipeline from gas to oil The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system.
					In January 2015, the Government of British Columbia introduced a regulation that prohibits natural gas pipelines built for proposed Liquefied Natural Gas (LNG) terminals from carrying oil or bitumen.
					Chemical leakages and explosions on land or water
					Woodfibre LNG will be designed for the safe and efficient handling of liquefied natural gas, both on land and on water. This includes standards set out in the BC Oil and Gas Activities Act and the associated Liquefied Natural Gas Facility Regulation, national and BC building codes, as well as national and international standards, guidelines and codes of practice where there are no applicable codes for BC.
					A Fire and Gas Detection System (FGS) will be implemented giving a high probability of confirmed detection in any zone within the first 30 seconds of a release. A flammable and toxic gas detection system will form part of the FGS, which will be independent of process control and safety instrumented systems.
					During operation, major accidents at LNG facilities are very rare. LNG is not explosive in an unconfined environment. Two fire / vapour cloud explosions at LNG facilities are known to have occurred in the past 60 years. A vapour cloud and fire in Ohio occurred in 1944 because of leaks from an LNG tank constructed from inappropriate material, and in 2004 an explosion occurred in Algeria because of a steam boiler problem (boilers are not part of the Project design). Standards for modern LNG facilities have benefited from the lessons learned from these accidents, and include design requirements that avoid these accidents.
					Liquefied natural gas (LNG) has been shipped safely around the world for more than 50 years. There has never been a recorded incident involving a loss of containment of an LNG carrier at sea. LNG carriers are among the most modern and sophisticated ships in operation. These ships have robust containment systems, double- hull protection and are heavily regulated by international and federal

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					standards. The Accidents and Malfunctions section (Section 11.0) of the Application assessed the consequence and frequency of effects resulting from credible worst case scenarios for the Project. It showed that potential risks to the public were within the tolerable risk criteria regulated by the BC Oil and Gas Commission (OGC). The OGC will include a review of the quantitative risk assessment for this Project in the permit application review to confirm that the study and results meet the regulated requirements. Additional information on accidents and malfunctions was provided to the EAO on April 29, 2015. Please also refer to Public Safety and Marine Transport Information Sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.
					Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product.
					In fact, replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year, equates to taking 557,000 cars off the roads ²⁰ .
					Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.
					Rising Waters in Howe Sound Project components will be designed to accommodate a sea level
					rise of 0.5 metres. <u>Subsidence and soil slides</u> The Project will be designed for a one in 2,475 year earthquake and in accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.
					To address the potential for liquefaction, ground improvements will be undertaken as part of Project construction and if deemed necessary, critical infrastructure will be moved to other locations within the Project site.
					Impacts on biodiversity The potential effects of the Project on the environment have been assessed in Section 5.0 Assessment of Potential Environmental Effects of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project-related significant adverse

²⁰ Note on Source: A 2009 independent study commissioned by CLNG (Centre for Liquefied Natural Gas) and performed by Pace Global Energy Services found that existing U.S. coal fired power generation produces more than double the lifecycle greenhouse gas emissions than power generation fueled by regasified LNG.

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					residual effects to the environment. Impacts on Human Health The potential effects of the Project on the public is assessed in Section 9.2 Public Health, and includes an assessment on community health and well-being (for example, population and demographics, education and training, alcohol and drug abuse and crime) and a human health risk assessment for Project-related emissions. The assessments concluded that there were no Project- related significant adverse effects to public health. Effects of LNG carriers on Howe Sound An assessment of the potential effects of the Project on marine mammals is included in Section 5.19 Marine Mammals, and includes an assessment of the effects of noise from LNG carriers. The assessment of the effects of noise from vessel traffic may cause a short-term change in behaviour of marine mammals due to underwater noise during construction. Woodfibre LNG Limited will develop and implement Underwater Noise Management Plan and a Marine Mammal Management Plan. These plans will include mitigation measures designed to address adverse effects and from underwater noise and monitoring programs. Woodfibre LNG Limited will retain a contractor to perform underwater acoustic monitoring for pre, during and post project construction. The underwater monitoring will collect underwater sound levels and marine mammal presence (e.g., of those species present, their frequency and seasonality). This will contribute further to baseline information for both underwater sound levels and mammal presence in the project area and in the vicinity of the Project Site to monitor potential changes of marine mammals over time. Please also refer to the Marine Mammals information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
260(xii)	February 25, 2015	T. Carroll - Squamish, British Columbia	12. And to be included in the list: falling global and local oil and gas prices, which discredit the present "benefits" calculations of the WF LNG project. Will a new, up-to-date cost/benefit analysis and a genuine, transparent financial accounting, be undertaken and presented to the public? Presumably this would also show the amount of subsidies being provided by the BC Government, and now the Federal Government, to the WF LNG/Fortis projects, and thereby to foreign corporations, and thus being PAID BY THE TAXPAYER? If not, why not? Shouldn't we be entitled to know the real costs at this point in time?	Economic Benefits of the Project	As LNG Projects involve significant capital investment which is recovered over a long period of time, final investment decisions (FIDs) on LNG projects are not made lightly, nor are they based on the price of oil or gas on any given day, or even a given year. Rather, FIDs are made based on long-term forecasts and take into account numerous factors, many of which are specific to the project or the proponent(s). Current forecasts are that the global demand for energy will increase by 35% by 2035, and the specific demand for natural gas is expected to increase by 55% ²¹ . The increasing standards of living and rapid economic growth in Asia (6-8% GDP growth annually) are the key triggers for the increase in demand ²² . China's energy demand increases by 5% annually ²³ . Not only is Asia seeking new sources of energy to meet needs (diversify), Asia is looking for cleaner alternatives (e.g. China aims to reduce coal consumption to less than 65% total energy usage by 2017) ²⁴ . Woodfibre LNG Limited will pay a variety of taxes, including income tax, LNG tax, and municipal property tax.

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BP Statistical Review of World Energy Report, June 2013. < http://www.bp.com/content/dam/bp/pdf/statistical-review/statistical_review_of_world_energy_2013.pdf> ICIS. China Natural Gas Annual Report < http://www.icis.com/energy/channel-info-about/china-natural-gas-annual-report/> Wood Mackenzie. LNG Service Tools: Understanding the dynamics of the global LNG industry < http://public.woodmac.com/content/portal/energy/highlights/wk3_Nov_13/LNG%20Service%20and%20Tool.pdf> National Development and Reform Commission. 2014. Social Development and National Economics Statistics Bulletin 2011 – 2013. 23

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260(xiii)	February 25, 2015	T. Carroll - Squamish, British Columbia	 13. Other commenters have provided detailed comments, studies, and analyses on those, and I will not repeat them here, except to say that the proponents, their owners and management, along with both provincial and Federal politicians/policy-makers, and the EAO, should take them into account seriously and not be dismissive or minimize those well-considered, well-studied inputs. Bottom Line: I do NOT support the two WF LNG and Fortis Pipeline projects in any way, shape, or form. They are inappropriate for the present proposed locations, for awesome Squamish and environs, for gorgeous Howe Sound and the Salish Sea, plus the communities aligning that magnificent, unique fjord. I hope and trust that you, as an independent body, will REJECT both of these projects - the Wood Fibre LNG facility with its attendant tanker traffic, and the Fortis Pipeline linked to the WF LNG. Good luck to you in your deliberations. 	LNG Project	This comment is noted.
261	February 25, 2015	Ron Drewry - Squamish, British Columbia	Ron Drewry and Nuna Innovations Inc., a local Squamish business, strongly support the Woodfibre LNG Project. I believe it will be very beneficial for the community, and the benefits far exceed the risks.	LNG Project	Thank you, this comment is noted.
262(i)	February 25, 2015	Judith Kenly - Gibsons, British Columbia	 Woodfibre LNG EA Howe Sound Tanker Traffic 1. In the Horseshoe Bay area, there may be 4 Ferries, and an LNG tanker in the area at the same time. This will impact the Ferry Schedule, How do you plan on dealing with this? 	Effects of the Project on Marine Transport	 Thank you for your questions. An assessment of the effect of the LNG carriers on other marine traffic is included in Section 7.3 Marine Transport of the Application. BC Ferries has not identified scheduling delays or interruptions as a potential effect. Following detailed discussions with BC Ferries, Pacific Pilotage Authority and BC Coast Pilots, it has been determined that there will be no serious effect to BC Ferries when sharing the waterway near Horseshoe Bay with LNG carriers. Coordination with these vessels will follow normal communication protocols under the Marine Communication and Traffic Services (MCTS).

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					As part of the Application, a Vessel Wake Assessment was carried out by Moffatt & Nichol. Moffatt & Nichol is a leading global infrastructure advisor with a BC presence specializing in the planning and design of facilities that shape coastlines, harbours and rivers, as well as an innovator in the planning for transportation complexities associated with the movement of freight.
262(ii)	February 25, 2015	Judith Kenly - Gibsons, British Columbia	2. Coastal areas have had problems with destructive "wash" from larger vessels. What are you doing to ensure prevention of further coastal damage from your ships?	Effects of Shipping on the Shoreline	The vessel wake assessment estimated that the wake generated by the carriers in normal conditions would be less than 10 centimetres at 50 metres away from the LNG carrier, which is less than the wind- generated waves typically encountered in Howe Sound. In addition, it identified that any wake generated by a LNG carrier along the shipping route would diminish in size the further it traveled away from an LNG carrier, and would be unnoticeable at the shoreline, given the natural occurrence of typical wind-generated waves in Howe Sound.
					Indirect wake effects from shipping activities were considered in the assessment (Section 7.3.3.2.1 Potential Interactions) and, based on the analysis by Moffatt & Nichol, the potential wake effects were determined to be negligible (i.e., they would not have a measurable change).
					For more information on the Vessel Wake Assessment, please see Appendix 7.3-2 of the Application. Additional information on the vessel wakes was provided to the EAO on April 23, 2015.
262(iii)	February 25, 2015	Judith Kenly - Gibsons, British Columbia	3. There are MANY recreational boats in Howe Sound as well as log booms, chip barges, supply vessels etc. How will you ensure that your vessels, carrying hazardous material, will in no way disrupt the recreational and fishing activities?	Effects of the Project on Marine Recreation / Fishing	Subject to the recommendations of Transport Canada's Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) Review Committee, which includes Transport Canada, Pacific Pilotage Authority, BC Coast Pilots and Canadian Coast Guard, Woodfibre LNG has always maintained that it would deploy at least three tugs, at least one of which will be tethered, to provide a dynamic safety awareness zone for recreational and pleasure craft around the LNG carrier during its transit within Howe Sound. This dynamic safety awareness zone would extend up to 50 meters on either side of the vessel and up to 500 metres in front and, being dynamic in nature, would be transient with the movement of the LNG carrier. This arrangement of tugs also serves as an emergency provision to address contingencies that may require the vessel to stop or engage in manoeuvers at very short notice. Woodfibre LNG will develop a Squamish Harbour Vessel Traffic Plan to identify strategies to minimize displacement of the Squamish Harbour Vessel Traffic Plan, Woodfibre LNG will also work with Matthews
					Southwest and Bethel Lands Corporation, and District of Squamish, to minimize displacement of recreation activity by Project-associated ferry and water taxi traffic that travels to and from the Project site. Please also refer to the Marine Transport and Marine Recreation
					information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comment.

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262(iv)	February 25, 2015	Judith Kenly - Gibsons, British Columbia	 MARINE Habitat 1. I have grave concerns about the impact of warm water being introduced into the marine environment. 2. There is a comment, in some of the literature about this project to regarding a chemicalbeing added to the "cooling waterthe effect that " 	Seawater Cooling System	Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. All discharges to the marine environment will meet or exceed applicable legislation and guidelines, including the BC Water Quality Criteria (marine and estuarine life), the Canadian Environmental Quality Guidelines (water quality guidelines for the protection of aquatic life – marine), and the Fisheries Act. The seawater cooling system will require a waste discharge permit under section 14 of the <i>Environmental Management Act.</i> Woodfibre LNG Limited is legally required to comply with all requirements as outlined in the permit. The seawater cooling system will be designed to meet BC water quality guidelines. The release temperature of the seawater will be less than 21°C, or 10°C above ambient water temperature of Howe Sound, whichever is less. A maximum temperature of 21°C is considered non-lethal to fish and mammals. Sodium hypochlorite may be used to prevent bio-fouling of the seawater cooling system intake lines, and as a result some residual chlorine may be present in the discharge water at a concentration no greater than 0.02 mg/L. This concentration is below the federal and provincial criteria of 0.04 mg/L to 2.0 mg/L. Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please also refer to the Seawater Cooling System and Marine Mammal Information Sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.
263	February 25, 2015	Personal Information Withheld - Squamish, British Columbia	I am pleased to hear of this project. First, it will single handedly increased the Squamish property tax base by a huge percentage. Providing a much needed influx of funds for operational and infrastructure replacement within the DOS. Second, as a potential employer of red seal trades both during construction and operating stages, the project will create the kind of jobs (careers) which are sustainable in today's and tomorrow's economies. (As opposed to low paying "stop gap" or "entry level" "jobs" most often available in industries such as "Tourism"). Third, this project while smaller (and more financially manageable) than several proposed LNG projects in early planning stages in the BC North Coastal region, is vastly important to increase the BC provincial tax base, thereby the prosperity of all citizens in it's jurisdiction. And fourth, in a more global view, where ever this new supply of clean energy offsets the use of coal produced energy, it is a net benefit to the health of the planet and all it's inhabitants. (Lest we forget, British Columbia exports Coal throughout the world for this purpose today in vast quantities) Go clean burning B.C. Natural Gas!	LNG Project	Thank you, this comment is noted.

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264	February 25, 2015	Claire Broderick - West Vancouver, British Columbia	This is SUPER NATURAL BRITISH COLUMBIA. I love the fact that we have clean air, mostly clean water, and mostly pristine land. I would be very unhappy to see a gas plant in or near Squamish at the old Woodfibre location. I am totally against fracking and pipelines. Please keep our Province free of them.	LNG Project Pipeline	Thank you for the comment. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Like other customers along the pipeline route, Woodfibre LNG will buy its feed gas from third party suppliers, potentially including aggregators. This natural gas will be delivered in a co-mingled stream through the Fortis BC pagle Mountain – Woodfibre Gas Pipeline Project. FortisBC's Eagle Mountain – Woodfibre Gas Pipeline Project is undergoing a separate environmental assessment certificat

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265	February 25, 2015	Diana Hardacker - Chemainus, British Columbia	Please do not proceed with any LNG development. The IPCC (Intergovernmental Panel on Climate Change) comprised of almost 200 scientists from around the world agree that we MUST wean ourselves off fossil fuels if we are to avoid catastrophic climate change. We are already seeing the effects of climate change and unless we reduce the amount of GHG's in the atmosphere we will exceed the 2 degree increase. If I had a child that was sick and 97 out of 100 doctors told me to "wean ourselves off fossil fuels" I would take their advice. Your role as a climate leader with the BC Carbon Tax is a wonderful start on the needed task of reducing greenhouse gases; however, LNG is a greenhouse gas, and methane gas (34 times more efficient at trapping heat on the plantet) is emitted in fracking for LNG. Thank you in advance for being the leaders we need you to be. With Hope,	LNG Industry Climate Change	Thank you for your comment. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ²⁵ . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.
266	February 25, 2015	Personal Information Withheld - Vancouver, British Columbia	Fracking is harming the water table and adding huge amounts of greenhouse gases to the atmosphere. How can this happen in a province that calls itself "green"? And this is all for export. The only benifits are to foreign oil corporations. Stop this nonsense immediately.	Hydraulic Fracturing	 Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Like other customers along the pipeline route, Woodfibre LNG will buy its feed gas from third party suppliers, potentially including aggregators. This natural gas will be delivered in a co-mingled stream through the Fortis BC pipeline to the site.
267	February 25, 2015	Harry Wong - Vancouver, British Columbia	decarbonization needs to start nowfor the conservation of quality of life for all forms(human and otherwise)= please do not implement more monies /time /energy towards using fossil fuels.	LNG Industry	Thank you for your comment. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ²⁶ . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.
268	February 25, 2015	Gillian Smith - Lions Bay,	We, the Living		Thank you for the comment.

²⁵ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.
 ²⁶ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.

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		British	Bald Eagle		
		Columbia	Gray Wolf		
			Roosevelt Elk		
			Zostera Marina Eelgrass		
			Chinook Salmon		
			What shall we, the living, do while the scope and breadth of the more-than-human world disintegrates year-by-year while we wallow in a deep, dislocated sleep? With too many distractions on our minds and focused attention to the cultural commons, how do we honor the passing of mutual, but ignored lives? What festive celebrations or devastating funerals are proper?		
			Orcas Killer Whale		
			Gray Whale		
			Humpback Whale		
			Pacific White-sided Dolphin		
			Herring		
			In the time we have left, dear siblings, shall I cry ocean-laden saltwater from my primordial tears? This is a longing too vast for my heart; a wretchedness too strangling for my smothering throat.		
			Giant Octopus		
			Barn Owl		
			Sage Thrasher		
			Garry Oak		
			Tiger Salamander		
			Persuade me the accurate ways through the changing tides. Hide me in the ancient Douglas Fir. Is there still some glimmerings of old times there? Tell me old stories while you can vaguely remember.		
			Rockfish		
			Bull Trout		
			Monarch Butterfly		
			Sixgill Shark		
			Honey Bee		
			Is this trade and industry time of ours ending?		
			We score off the insects, animals and plants on a checklist as they exit a contaminated, money-driven world.		
			But wait. In reverse, an abundant and lavish Earth is on the way. You live inside us, available to us now, rich beings of the living future.		

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269(i)	February 25, 2015	Jennifer I Sullivan - Burnaby, British Columbia	I am a resident of BC. In order to adequately assess the submissions of this proposal, I would need them to furnish the following facts: 1) the amount of greenhouse gases emitted by the proposed LNG plant and pipeline over a year,	Greenhouse Gas Emissions Pipeline	Thank you for the comments. The Woodfibre LNG Project will be powered by electricity from BC Hydro. By powering the plant with electricity, instead of natural gas, we will reduce our greenhouse gas emissions by about 80%. This will make Woodfibre LNG one of the cleanest LNG facilities in the world. The majority of Woodfibre LNG air emissions will come from elements removed from the natural gas prior to liquefaction, which are incinerated. At peak capacity, the Project will have a greenhouse gas intensity of 0.059 t CO2e per tonne LNG, which is well below the threshold of 0.16 t CO2e per tonne LNG in the Greenhouse Gas Industrial Reporting and Control Act. Woodfibre LNG notes that the comment about the pipeline is directed to the Fortis BC Eagle Mountain Pipeline Expansion Project. FortisBC's Eagle Mountain – Woodfibre Gas Pipeline Project is undergoing a separate environmental assessment certificate application review process. Please see EAO website for more information: http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406 _38521.html
269(ii)	February 25, 2015	Jennifer I Sullivan - Burnaby, British Columbia	2) the proposed source(s) of gas, 3) the amount of water used in extraction and the location and size of the necessary storage tanks for the polluted water of these sources of gas over a year. I do not know where to look for the answers to these questions in the 10,000 pages of submissions. The public will suffer from any bad decisions on the government's part, and yet cannot properly contribute to the decision-making process.	Source of Feed Gas	 Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Like other customers along the pipeline route, Woodfibre LNG will buy its feed gas from third party suppliers, potentially including aggregators. This natural gas will be delivered in a co-mingled stream through the Fortis BC pipeline to the site. Natural gas liquefied in the Woodfibre LNG facilities will be produced and processed primarily in the northeastern region of BC, but may also originate from other wells connected to the Western Canadian Gas Transmission System. The Oil & Gas Activities Act and related regulations.
270	February 25, 2015	Marion Markham - Kitchener, Ontario	British Columbians and Canadians are committed to reducing greenhouse gases, and moving forwards on climate change, not backwards This proposed project would be a step backwards for BC, for Canada. And for all BC and Canadian citizens, and our children, and our children's children. I believe this is a hugely important decision that is before us, and we need to give more time for this decision to be made properly, there for the comment period should be extended to allow for proper review. We want BC to have it cleaned a future as possible, for present and future British Columbians / Canadians.	Climate Change	Thank you for your comment. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ²⁷ . At the request of Woodfibre LNG Limited, the EAO extended the public comment period from 46 days to 60 days, ending on March 23, 2015.

²⁷ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.

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			Thank you for your attention to this important matter.		
271	February 25, 2015	Alexander Briggs - Victoria, British Columbia	Without even bringing up the issue of earthquakes, we must remember back to June 1999 when snow creep damaged several power transmission towers near Squamish and BC Hydro spent something over 1.6 million dollars stabilizing and repairing this natural damage. http://squamishlibrary.digitalcollections.ca/uploads/r/ squamish-public- library/2/2/22275/19990615_The_Chief_Squamish_ B_C.pdf A gas pipeline would be subject to similar snow-creep forces in many places and could be damaged every year that has a deep snow-pack.	Pipeline	Woodfibre LNG notes that the pipeline is part of Fortis BC Eagle Mountain Pipeline Expansion Project. FortisBC's Eagle Mountain – Woodfibre Gas Pipeline Project is undergoing a separate environmental assessment certificate application review process. Please see EAO website for more information: <u>http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406</u> <u>_38521.html</u>
272	February 25, 2015	Personal Information Withheld - British Columbia	 Concerns about Woodfibre LNG Project: BC has committed to reducing its climate-changing greenhouse gas emissions by a third by 2020, from its 2007 rates. It is impossible for the province to build a giant new LNG industry and still hold itself accountable to these important targets. Howe Sound is an ecological jewel within the Salish Sea, and has experienced a tremendous recovery from the ecological damage caused by its industrial past. A new industrial plant here would jeopardize the vibrant and recovering ecosystem. Howe Sound's watersheds deliver between \$800 million and \$4.7 billion each year in natural services. The Singapore-owned Woodfibre LNG will deliver minuscule levels of tax income for British Columbians. The BC government continues to ignore the potential for more sustainable jobs in an improved forestry sector by continuing its focus on the fracking and LNG industry. In order for concerned citizens to review all of the relevant information and appendices submitted by the project proponents for both Woodfibre LNG and the Fortis BC pipeline, they would have to review over 10,000 pages of technical material. Because of the amount of material and the way the submission has been packaged, it's almost impossible to address all pertinent issues in the time period allocated. The comment period should be further extended to allow for proper review. 	LNG Project	Thank you for your comment. For a response to this comment, please refer to the "Woodfibre LNG Limited May 2015 Memo to Frequently Asked Questions", comment # 39-44.

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273	February 25, 2015	Jean Mallinson - West Vancouver, British	I understand that LNG is obtained from the ground by fracking and I am convinced that the consequences of fracking are not sufficiently understood for it to be a reliable method of	Hydraulic Fracturing	 Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system.
		Columbia	extraction. Therefor I am opposed to it.		Natural gas liquefied in the Woodfibre LNG facilities will be produced and processed primarily in the northeastern region of BC, but may also originate from other wells connected to the Western Canadian Gas Transmission System. The Oil & Gas Commission (OGC) regulates these extraction activities under the Oil & Gas Activities Act and related regulations.
274	February 25, 2015	Willow Vardal - Nanaimo, British Columbia	We don't want this to be our legace too. Our parents generation is haunted by all the environmental harm that we have to live with I don't want my childern to suffer because of disitions made today. Green energy only from this point is the only thing I suport.!	LNG Industry	Thank you for your comment. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ²⁸ . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project-

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²⁸ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
275	February 25, 2015	Personal Information Withheld - Burnaby, British Columbia	I am writing to express concerns about Woodfibre LNG application for an environmental assessment certificate from the BC government to build its facility in Howe Sound. BC has committed to reducing its climate-changing greenhouse gas emissions by a third by 2020, from its 2007 rates. It is impossible for the province to build a giant new LNG industry and still hold itself accountable to these incredibly important targets. Howe Sound is an ecological jewel within the Salish Sea, and has experienced a tremendous recovery from the ecological damage caused by its industrial past. A new industrial plant here would jeopardize the vibrant and recovering ecosystem. Howe Sound's watersheds deliver between \$800 million and \$4.7 billion each year in natural services. The Singapore-owned Woodfibre LNG will deliver minuscule levels of tax income for British Columbians. The BC government continues to ignore the potential for more sustainable jobs in an improved forestry sector by continuing its focus on the fracking and LNG industry. In order for concerned citizens to review all of the relevant information and appendices submitted by the project proponents for both Woodfibre LNG and the Fortis BC pipeline, they would have to review over 10,000 pages of technical material. Because of the amount of material and the way the submission has been packaged, it's almost impossible to address all pertinent issues in the time period allocated. The comment period should be further extended to allow for proper review. Thank you for your consideration.	LNG Project	Thank you for the comment. For a response to this comment, please refer to the "Woodfibre LNG Limited May 2015 Memo to Frequently Asked Questions", comment # 39-44.
276(i)	February 25, 2015	Joel Ornoy - Vancouver, British Columbia	In order to supply Woodfibre with gas, FortisBC is proposing to build a pipeline that would pass through Squamish and the Squamish estuary. The project would involve installing about 47 km of natural gas pipeline, starting from north of Coquitlam and running to the Woodfibre industrial site outside of Squamish. This infrastructure alone will have high environmental impacts and pose future threats from spills.	Pipeline	Woodfibre LNG notes that the pipeline is part of Fortis BC Eagle Mountain Pipeline Expansion Project. FortisBC's Eagle Mountain – Woodfibre Gas Pipeline Project is undergoing a separate environmental assessment certificate application review process. Please see EAO website for more information: <u>http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406</u> <u>38521.html</u>

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
276(ii)	February 25, 2015	Joel Ornoy - Vancouver, British Columbia	BC has committed to reducing its climate-changing greenhouse gas emissions by a third by 2020, from its 2007 rates. It is impossible for the province to build a giant new LNG industry and still hold itself accountable to these incredibly important targets. The BC government continues to ignore the potential for more sustainable jobs in an improved forestry sector by continuing its focus on the fracking and LNG industry. Howe Sound is an ecological jewel within the Salish Sea, and has experienced a tremendous recovery from the ecological damage caused by its industrial past. A new industrial plant here would jeopardize the vibrant and recovering ecosystem.Howe Sound's watersheds deliver between \$800 million and \$4.7 billion each year in natural services. The Singapore-owned Woodfibre LNG will deliver minuscule levels of tax income for British Columbians. The BC government needs to stand behind its own claims that it is a climate leader by walking away from its LNG aspirations and rejecting Woodfibre LNG.	LNG Project	Thank you for the comment. For a response to this comment, please refer to the "Woodfibre LNG Limited May 2015 Memo to Frequently Asked Questions", comment # 39-42.
277	February 25, 2015	Hannelore Pinder - Vancouver, British Columbia	I urge you to refuse Woodfibre LNG a licens for building this project. We can not have such a polluting and climate change enhancing industry in fragile and beautiful Howe Sound. In fact we should not have it anywhere since it releases so much methane, which is much worse for the climate than CO2. Please admit that fracking is a doomed industry and should be curtailed as fast as possible, and certainly not expanded	LNG Industry	 Thank you for your comment. Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project-related significant adverse residual effects to the environment.

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
278	February 26, 2015	Anna B - Squamish, British Columbia	BC has a progressive carbon tax, and is being responsible about protecting the future of the planet for its own residents as well as the global population. This project will undermine many of the efforts of the BC people to reduce their carbon footprint, as it will sell fossil fuels to others to burn. This will facilitate climate change, and contribute to the increasing unpredictability of global weather patterns. The IPCC report from 2007 is clear that climate change is real, that it is caused by humans, and that it will get worse, and we have seen this to be the case since it's publication. The government will effectively be punishing BC residents through an economic disincentive while promoting the sale of fossil fuels to cancel out any rewards which may have been achieved through changed behaviors. This project would undermine the BC Climate Action Plan. The plan clearly draws on Natural Resource Canada data which shows that BC has already felt the negative impacts of climate change. So why BC would make any move not to counter these trends, defies logic.	Climate Change	Thank you for your comments. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ²⁹ . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.
279	February 26, 2015	Personal Information Withheld - Lions Bay, British Columbia	Please listen to the people and the facts. We need to sit up and pay attention to how we and our choices are impacting the environment and whether we like it or not, global warming. LNG is not in BC's best interest.	Climate Change	Thank you for your comments. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ³⁰ . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.

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 ²⁹ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.
 ³⁰ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
280	February 26, 2015	Personal Information Withheld - Winnipeg	BC has committed to reducing its climate-changing greenhouse gas emissions by a third by 2020, from its 2007 rates. It is impossible for the province to build a giant new LNG industry and still hold itself accountable to these incredibly important targets. Howe Sound is an ecological jewel within the Salish Sea, and has experienced a tremendous recovery from the ecological damage caused by its industrial past. A new industrial plant here would jeopardize the vibrant and recovering ecosystem. Howe Sound's watersheds deliver between \$800 million and \$4.7 billion each year in natural services. The Singapore-owned Woodfibre LNG will deliver minuscule levels of tax income for British Columbians. In order for concerned citizens to review all of the relevant information and appendices submitted by the project proponents for both Woodfibre LNG and the Fortis BC pipeline, they would have to review over 10,000 pages of technical material. Because of the amount of material and the way the submission has been packaged, it's almost impossible to address all pertinent issues in the time period allocated. The comment period should be further extended to allow for proper review	LNG Project	Thank you for your comment. For a response to this comment, please refer to the "Woodfibre LNG Limited May 2015 Memo to Frequently Asked Questions", comment # 39-41, 43, and 44.
281	February 26, 2015	Greg Holloway - Saanich, British Columbia	I feel it's time climate impact MUST be part of EA. This is not only carbon footprint by BC operations. It is also the carbon in LNG export which someone somewhere burns delivering CO2 to atmosphere. We should no longer ignore downstream consequences of what we do. Thank you.	Climate Change	Thank you for your comment. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads ³¹ . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.

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³¹ Note on Source: A 2009 independent study commissioned by CLNG (Centre for Liquefied Natural Gas) and performed by Pace Global Energy Services found that existing U.S. coal fired power generation produces more than double the lifecycle greenhouse gas emissions than power generation fueled by regasified LNG.

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
282	February 26, 2015	Christie - Chilliwack, British Columbia	please, please keep our pristine land just that way. REJECT WOODFIBRE LNG PLEASE For the sake of our own well being, and our childrens' futures	LNG Project	Thank you for your comment. Woodfibre LNG Limited is of the view that the Woodfibre site is the right fit for an LNG facility. It features: zoned industrial, more than 100 years of industrial use, deepwater port, access to established shipping routes, access to FortisBC pipeline, access to BC Hydro transmission grid, and access to labour force. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment.
283	February 26, 2015	Brigitte Demarchuk - Manitoba	Although I do not reside in BC I am very concerned when it comes to fracking. LNG industry is guaranteed to add massive amounts of greenhouse gases to the atmosphere, which will have a serious impact on our climate. BC's Environment Minister brought this "clean, green LNG" claim to the world stage in December 2014 at the international climate talks in Peru. The BC government needs to stand behind its own claims that it is a climate leader by walking away from its LNG aspirations and rejecting Woodfibre LNG! Officials declared that BC would do its part to address global climate change by providing the world with a "cleaner-burning fossil fuel." BC can have a thriving economy without fracking and LNG.	LNG Industry	 Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Natural gas liquefied in the Woodfibre LNG facilities will be produced and processed primarily in the northeastern region of BC, but may also originate from other wells connected to the Western Canadian Gas Transmission System. The Oil & Gas Commission (OGC) regulates these extraction activities under the Oil & Gas Activities Activities Activities and related regulations.
284	February 26, 2015	Greg Weary - Lions Bay, British Columbia	In my opinion an LNG facility is incompatible with a long term sustainable economic future for Howe sound and Squamish. Development here should be based on, and protect, the relatively unspoiled (and recovering) natural environments in the vicinity of Howe Sound. These are especially valuable as they are easily accessible from Vancouver. Ecologically sustainable tourism and residential development is the best long term plan for Howe Sound, Squamish, Vancouver and BC.	LNG Project	Thank you for your comment. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. Woodfibre LNG Limited is of the view that tourism and industry can work together to create responsible economic development in Squamish. BC Ferries and Squamish Terminals have shown how industry can successfully coexist with local tourism and recreation, and Woodfibre LNG Limited is working hard to follow that example. An assessment of the potential effects of the Project on tourism is included in Section 6.2 Labour Market and Section 6.3 Sustainable Economy. The Application concluded that there were no Project-

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
					related significant adverse residual effects to the economy.
285	February 26, 2015	Personal Information Withheld - , British Columbia	No to LNG in Woodfibre. It would involve more tracking, which is dangerous to the environment.	Hydraulic Fracturing	 Woodfibre LNG interprets the comment to refer to hydraulic fracturing and acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Natural gas liquefied in the Woodfibre LNG facilities will be produced and processed primarily in the northeastern region of BC, but may also originate from other wells connected to the Western Canadian Gas Transmission System. The Oil & Gas Activities Act and related regulations.
286	February 26, 2015	John Snyder - Fanny Bay, British Columbia	I would like to submit the following concerns regarding the Woodfibre LNG Project: BC has committed to reducing its climate-changing greenhouse gas emissions by a third by 2020, from its 2007 rates. It is impossible for the province to build a giant new LNG industry and still hold itself accountable to these incredibly important targets. Howe Sound is an ecological jewel within the Salish Sea, and has experienced a tremendous recovery from the ecological damage caused by its industrial past. A new industrial plant here would jeopardize the vibrant and recovering ecosystem. Howe Sound's watersheds deliver between \$800 million and \$4.7 billion each year in natural services. The Singapore-owned Woodfibre LNG will deliver minuscule levels of tax income for British Columbians. The BC government continues to ignore the potential for more sustainable jobs in an improved forestry sector by continuing its focus on the fracking and LNG industry. In order for concerned citizens to review all of the relevant information and appendices submitted by the project proponents for both Woodfibre LNG and the Fortis BC pipeline, they would have to review over 10,000 pages of technical material. Because of the amount of material and the way the submission has been packaged, it's almost impossible to address all pertinent issues in the time period allocated. The comment period should be further extended to allow for proper review. I also view the proponent run "open houses " as a dog and pony show. Public meetings or a review panel with public hearings would be more rigorous and provide the public with much more information. In short, I don't support this project and would urge the EAO to reject this proposal.	LNG Project	Thank you for your comment. For a response to this comment, please refer to the "Woodfibre LNG Limited May 2015 Merno to Frequently Asked Questions", comment # 39-44.

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
287	February 26, 2015	Personal Information Withheld - Squamish, British Columbia	I support WLNG and look forward to the financial benefits. Our community can certainly use them!	LNG Project	Thank you, this comment is noted.
288	February 26, 2015	John Maxwell - , British Columbia	My concern is with this project's contribution to greenhouse gases and its effect on global climate change. LNG is based on an extremely potent greenhouse gas, and I have seen little to no consideration of the release of natural gas into the atmosphere at all stages of resource extraction and processing. Please ensure that this project's environmental assessment include ALL of the effects to the environment, and not just the ones to the immediate vicinity of the installation. I do not believe that this project nor LNG development in general is in BC's best interests. There is a high likelihood that by the time a facility like this is ready to produce marketable LNG, the market will have disappeared, either because it can be produced cheaper elsewhere or because the global consensus is to move away from fossil fuels and to green alternatives. If the latter is the case, this will have been a major waste of time and money, in addition to an ecological disaster.	Climate Change	Thank you for your comment. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ³² . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.

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³² Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
289	February 26, 2015	Personal Information Withheld - Squamish, British Columbia	I am concerned at the lack of baseline data available to accurately assess what the implications are for this project. The LNG committee has noted that there are gaps in information that MUST be addressed before this project can be approved. Studies on marine life, air quality must be done to ensure we know exactly what changes are taking place as a result of such an industry.	Environmental Assessment Application Baseline Studies	 Thank you for your comment. Woodfibre LNG undertook air dispersion modelling based on planned activities and equipment use — including marine vessels — to predict air emissions from the Project operation phase. The results of the dispersion modelling were compared against federal and provincial standards and guidelines; and all predicted concentrations were below these standards and guidelines. Woodfibre LNG characterized current climate and climate trends using the Squamish Airport climate station. At peak capacity, the Project will have a greenhouse gas intensity of 0.059 t CO2e per tonne LNG, which is below the threshold of 0.16 t CO2e per tonne LNG in the Greenhouse Gas Industrial Reporting and Control Act. For more information, please see: Section 9.2.2 Human Health Risk Assessment includes an assessment of the potential effects on humans by Project-related emissions. The Application concluded that there were no Project-related significant adverse effects. Section 5.2 Atmospheric Environment (Air Quality) of the Application includes an assessment of the potential of Project-related effects to air quality. The Application concluded that the changes to air quality criteria for all indicator compounds and the residual effects are considered negligible or not significant. For a further response to this comment, please refer to the "Woodfibre LNG Limited May 2015 Memo to Frequently Asked Questions", comment #19. Please also refer to Air Quality information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.
290	February 26, 2015	Personal Information Withheld - Lions Bay, British Columbia	I am very concerned about the effect of (rogue) waves in our area. Beaches are filled with children and their families. Have there been any studies done.I want to remind the EAO, Christy Clark and our Governments about the Fast Ferry Fiasco.It is a stark reminder must be a stark reminder of very costly mistakes made and committed.Who payed for the mistakes? No other then the B.C. taxpayers (Once again)	Effects of Marine Transport	 Thank you for your comment. As part of the Application, a Vessel Wake Assessment was carried out by Moffatt & Nichol. Moffatt & Nichol is a leading global infrastructure advisor with a BC presence specializing in the planning and design of facilities that shape coastlines, harbours and rivers, as well as an innovator in the planning for transportation complexities associated with the movement of freight. The vessel wake assessment estimated that the wake generated by the carriers in normal conditions would be less than 10 centimetres at 50 metres away from the LNG carrier, which is less than the wind-generated waves typically encountered in Howe Sound. In addition, it identified that any wake generated by a LNG carrier along the shipping route would diminish in size the further it traveled away from an LNG carrier, and would be unnoticeable at the shoreline, given the natural occurrence of typical wind-generated waves in Howe Sound. Indirect wake effects from shipping activities were considered in the assessment (Section 7.3.3.2.1 Potential Interactions) and, based on the analysis by Moffatt & Nichol, the potential wake effects were determined to be negligible (i.e., they would not have a measurable change). For more information on the Vessel Wake Assessment, please see Appendix 7.3-2 of the Application. Additional information on the vessel wakes was provided to the EAO on April 23, 2015.

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
291	February 26, 2015	Personal Information Withheld - Lions Bay, British Columbia	I am very concerned about the cooling water being discharged into Howe Sound. How will this affect the marine life. I am not a scientist, but know as much that this is NOT a good practice anywhere, anytime,anyplace Say NO to LNG and Woodfibre.	Seawater Cooling System	Thank you for your comment. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. All discharges to the marine environment will meet or exceed applicable legislation and guidelines, including the BC Water Quality Criteria (marine and estuarine life), the Canadian Environmental Quality Guidelines (water quality guidelines for the protection of aquatic life – marine), and the Fisheries Act. The seawater cooling system will require a waste discharge permit under section 14 of the <i>Environmental Management Act.</i> Woodfibre LNG Limited is legally required to comply with all requirements as outlined in the permit. For more information on the effects of the Project on marine water quality please refer to Section 5.10 Marine Water Quality. Additional components of the marine environment that have been assessed include Freshwater Fish and Fish Habitat (Section 5.15), Marine Benthic Habitat (Section 5.16), Forage Fish and Other Fish (Marine) (Section 5.18) and Marine Mammals (Section 5.19). A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please also refer to the Seawater Cooling System and Marine Mammal Information Sheets that have been prepared as part of the Woodfibre LNG Limited response t

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
292	February 26, 2015	Personal Information Withheld - Lions Bay, British Columbia	I am concerned on the effect this WFLNG project would have on the majority of residents in Squamish. Their health, their tourism, their First Nations believe in Mother Earth is in jeopardy, their Salish Sea and their value of their homes. The citizens of Squamish have worked hard to bring their beautiful community to new standards that coincide with nature and it's surrounding beauty. The people of Squamish voted last November. They knew what was needed to move them forward and in the right direction	Effects of the Project on Squamish	Thank you for your comment. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. Woodfibre LNG will comply with all applicable regional, provincial and federal laws, regulations, guidelines and standards including but not limited to: employment standards; health and environmental regulations and standards; taxation; and, First Nations agreements. Woodfibre LNG Limited is of the view that the Woodfibre site is the right fit for an LNG facility. It features: zoned industrial, more than 100 years of industrial use, deepwater port, access to BC Hydro transmission grid, and access to labour force. The potential effects of the Project on the public is assessed in Section 9.2 Public Health, and includes an assessment on community health and well-being (for example, population and demographics, education and training, alcohol and drug abuse and crime) and a human health risk assessment for Project-related emissions. The assessments concluded that there were no Project- related significant adverse effects to public health. Woodfibre LNG Limited is of the view that tourism and industry can work together to create responsible economic development in Squamish. BC Ferries and Squamish Terminals have shown how industry can successfully coexist with local tourism and recreation, and Woodfibre LNG Limited is working hard to follow that example. For example, Section 7.5 Visual Quality of the Application includes an assessment of the potential effects of the Project on the viewscape, including from the Sea-to-Sky Gondola to address concerns associated with that viewscape and to consider potential mitigation measures. An assessment of the potential effects of the Project on tourism is included in Section 6.2 Labour Market and Sectio
293	February 26, 2015	Personal Information Withheld - Lions Bay, British Columbia	I am very concerned the LNG project and the monstrous LNG Tankers in Howe Sound are not a clean energy picture. Getting (fracking) the gas out of the ground has been proven disastrous in other countries. Can you PLEASE tell me why people have not seen, read or witnessed the massive destruction that comes from fracking!! These folks must be living under a rock. Just because we throw the word NATURAL between the LIQUEFIED and GAS does not mean it is clean energy.As you read along the comments you see that our cabon foot print will escalate with this type of practice.	Hydraulic Fracturing LNG Industry	 Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Natural gas liquefied in the Woodfibre LNG facilities will be produced and processed primarily in the northeastern region of BC, but may also originate from other wells connected to the Western Canadian Gas Transmission System. The Oil & Gas Commission (OGC) regulates these extraction activities under the Oil & Gas Activities Act and related regulations.

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Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response
294	February 26, 2015	Personal Information Withheld - Vancouver	No to LNG in Woodfibre. It would involve more tracking, which is dangerous to the environment.	Hydraulic Fracturing	 Woodfibre LNG interprets this comment to refer to hydraulic fracturing and acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Natural gas liquefied in the Woodfibre LNG facilities will be produced and processed primarily in the northeastern region of BC, but may also originate from other wells connected to the Western Canadian Gas Transmission System. The Oil & Gas Activities Act and related regulations.
295	February 27, 2015	Personal Information Withheld - Victoria, British Columbia	any LNG that is produced by fracking is not in the best interest of B C , there should be a ban on fracking inB C .	Hydraulic Fracturing	 Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Natural gas liquefied in the Woodfibre LNG facilities will be produced and processed primarily in the northeastern region of BC, but may also originate from other wells connected to the Western Canadian Gas Transmission System. The Oil & Gas Activities Act and related regulations.
296	February 27, 2015	Personal Information Withheld - Burnaby, British Columbia	BC has committed to reducing its climate-changing greenhouse gas emissions by a third by 2020, from its 2007 rates. It is impossible for the province to build a giant new LNG industry and still hold itself accountable to these incredibly important targets. Howe Sound is an ecological jewel within the Salish Sea, and has experienced a tremendous recovery from the ecological damage caused by its industrial past. A new industrial plant here would jeopardize the vibrant and recovering ecosystem. Howe Sound's watersheds deliver between \$800 million and \$4.7 billion each year in natural services. The Singapore-owned Woodfibre LNG will deliver minuscule levels of tax income for British Columbians. The BC government continues to ignore the potential for more sustainable jobs in an improved forestry sector by continuing its focus on the fracking and LNG industry. Please don't ruin such a beautiful area.	LNG Project	Thank you for the comment. For a response to this comment, please refer to the "Woodfibre LNG Limited May 2015 Memo to Frequently Asked Questions", comment # 39-42.

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297	February 27, 2015	Personal Information Withheld - Squamish, British Columbia	Please consider this recent article published by the David Suzuki Foundation - http://www.davidsuzuki.org/publications/reports/201 5/sound-investment-measuring-the-return-on-howe- sounds-ecosystem- assets/?utm_campaign=Howe%20Sound&utm_sour ce=facebook.com&utm_medium=FBPostcard&utm_ content=HS_SquamishR2HE Howe Sound has made a remarkable recovery by any standards and its ecological value far exceeds any short term monetary gains that BC or Canada stand to gain. The risk to Howe Sound and the environment "upstream" of the project where fracking is required to extract this horrible resource simply do not make sense. Canada is becoming the worst environmental terrorist on the planet, how can this be happening when we are all so informed?	LNG Project LNG Industry	 Thank you for the comment. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been committed to listening to the community and building a project that is right for Squamish and right for BC – and this includes environmental stewardship. The Woodfibre site has been used for industrial purposes for 100 years and is zoned for industrial use. Woodfibre LNG's purchase of the property was contingent on its former owner, Western Forest Products (WFP), obtaining a Certificate of Compliance (COC) from the BC Ministry of Environment (MOE). On December 22, 2014, the MOE issued two COCs for the Woodfibre property. The COCs confirm that WFP has cleaned up the site to acceptable contaminant levels and existing site contamination does not pose an ecological or human health risk. These COCs include conditions related to monitoring and management of residual contamination, and reporting requirements that must be undertaken by a BC MOE Approved Professional. Woodfibre LNG Limited intends to perform additional remediation and restoration in the Project area. Plans for additional remediation include the removal of approximately 3,000 existing creoste-coated piles from the waterfront in the Project area and the creation of a Green Zone around Mill Creek. This work will be carried out in partnership with the local groups, where suitable, so that local conservation and restoration targets can be met (please refer to Section 2.6.7 Ecological Benefits of the Application). An assessment of the potential Project-related effects on the environment is included in Section 5.0 of the Application. The Application concluded that, with mitigation measures in place, there were no Project-related significant adverse residual effects to the environment. Woodfibre LNG acknowledges the expressed concern regarding hydraulic fractu

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298	February 27, 2015	Personal Information Withheld - White Rock, British Columbia	Greetings, I would like to voice my vehement opposition to the proposed Woodfibre LNG project in Howe Sound. BC should be a global leader in producing clean, sustainable sources of energy rather than continuing to extract and export fossil fuels that directly lead to global warming. It is time to put a stop to unsustainable resource extraction and move toward producing energy in a responsible manner.	LNG Industry	Thank you for the comment. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from high- emission fuels such as oil and coal. This is particularly true in energy- hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ³³ . Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gases. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project- generated greenhouse gas emissions. The relatively minor increase in global emissions associated with the Project would correspond to a change in climate that is unlikely to be measurable.
299(i)	March 27, 2015	Personal Information Withheld	The proposed Woodfibre LNG Project is environmentally dangerous to BC and poses a threat to the area's tourism and fishing industries. Th plant will suck in sea water (and living sea organisms) and expel HEATED water into the Howe Sound. The energy required to cool gas to a liquid form will in turn create MORE pollution through fraction. In addition to polluting our ground water, tracking releases tremendous amounts of harmful methane into the atmosphere. The methane is far more dangerous to global warming than coal- burning power plants.	Hydraulic Fracturing Effects of the Project on Tourism, Fishing	Thank you for the comment. Woodfibre LNG Limited interprets the comment to refer to hydraulic fracturing and acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project. Woodfibre LNG Limited is not engaged in oil or gas extraction or production activities. The gas delivered to the Project site will be supplied to the Project from western Canadian market hubs through an expansion of the existing gas transmission system by Fortis BC, and is the same gas that is supplied to Squamish, Metro Vancouver, Whistler, the Sunshine Coast and Vancouver Island through the Fortis BC pipeline system. Natural gas is the cleanest burning fossil fuel and has been identified as the best and most reliable way to help transition away from highemission fuels such as oil and coal. This is particularly true in energy-hungry Asian markets, where Woodfibre LNG plans to sell its product. Replacing just one 500 Megawatt coal-fired power plant with natural gas fueled power generation for one year equates to taking 557,000 cars off the roads over the same time period ³⁴ . A literature review of key studies of comparing emissions from natural gas and coal can be found here: http://www.capp.ca/getdoc.aspx?Docld=215278&DT=NTV Section 5.3 Greenhouse Gas Management of the Application includes an assessment of the potential Project-related effects to greenhouse gase. The influence of Project-related greenhouse gas emissions on climate change was evaluated by assessing whether any measurable change in climate could result from the Project-generated greenhouse gas emissions. The relatively minor increase in global emission sassociated with the Project would correspond to a change in climate that is unlikely to be measurable. Woodfibre LNG Limited recognizes the community concerns about the potential effects of the Project on the waters and marine and plant life in Howe Sound. From the very beginning, Woodfibre LNG has been commited to listening to the community and build

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 ³³ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.
 ³⁴ Centre for Liquefied Natural Gas. http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf.

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					Economy. The Application concluded that there were no Project- related significant adverse residual effects to the economy. All discharges to the marine environment will meet or exceed applicable legislation and guidelines, including the BC Water Quality Criteria (marine and estuarine life), the Canadian Environmental Quality Guidelines (water quality guidelines for the protection of aquatic life – marine), and the Fisheries Act. The seawater cooling system will require a waste discharge permit under section14 of the <i>Environmental Management Act.</i> Woodfibre LNG Limited is legally required to comply with all requirements as outlined in the permit. For more information on the effects of the Project on marine water quality please refer to Section 5.10 Marine Water Quality. Additional components of the marine environment that have been assessed include Freshwater Fish and Fish Habitat (Section 5.15), Marine Benthic Habitat (Section 5.16), Forage Fish and Other Fish (Marine) (Section 5.18) and Marine Mammals (Section 5.19). A summary of the residual and cumulative environmental effects that cannot be avoided or mitigated through the re-design or relocation of the Project, or through Proponent commitments to mitigation measures are included in Section 21.0 Summary of Project-related Residual Effects. Mitigation measures are summarized in Section 22.0, and include mitigation measures to reduce or avoid effects to the marine environment. The Application concluded that there were no Project- related significant adverse residual effects to the environment. Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please also refer to the Seawater Cooling System information sheet that have been prepared as part of the Woodfibre LNG Limited response to public comments.
299(ii)	March 27, 2015	Personal Information Withheld	The EAO is ineffective in addressing any of these concerns, as it has no power, no recourse and no ability to do anything than offer an opinion. Really - what difference will that make to the government or the foreign investors?	EA Process	 The EAO is an office of the government with authority and responsibilities defined by the Environmental Assessment Act. Following the assessment process, the EAO prepares reports for and refers applications in respect of reviewable projects such as the Woodfibre LNG Project to the Minister of the Environment for decision. A reviewable project cannot proceed without first being issued an Environmental Assessment Certificate. Should an Environmental Assessment Certificate be granted for the Project, a Table of Conditions will be developed that outlines all of the requirements with which the Project will have to comply. Woodfibre LNG Limited will be legally responsible for ensuring all conditions are met. The Project will also require a Facility Permit, Leave to Commence Construction and Leave to Operate from the Oil and Gas Commission (OGC) as well as numerous other environmental permits.

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For more information related to comments on the Environmental Assessment process please see "EAO Response to Public Comments – Application Review Public Comment Period for Woodfibre LNG, January 22 – March 23, 2015" under Application Review - EAO Generated Documents [Link].

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300	March 27, 2015	Star Morris - Squamish, British Columbia	 12.3.3.1 Description of Event - WLNG's EA Application, under 'Natural Siesmic Events' states "The seismic hazard along the west coast of BC is significant due to earthquakes that occur along offshore faults and within the subducting Juan de Fuca tectonic plate in the Cascadia subduction zone. There is potential for very large earthquakes of magnitude 8.0 to 9.0." 5.6.4.2 Potential Geotechnical-related Hazards - it describes: potential for loss of integrity of Henriette Dam upstream in the Woodfibre Creek watershed • liquefaction of soil and sediments that could result in substantial damage to the Project infrastructure as well as pose a risk to people. submarine slope failures, which have occurred at the Project site 12.3.3.5 Conclusions Regarding Seismic Events - "As indicated in Section 5.6 Geotechnical and Natural Hazards, the risk to the Project resulting from tsunamis generated by either large landslide/rockslide events along Howe Sound, or earthquake events, is considered to be low to very low." A Geotechnical Assessment report by Knight Piésold is frequently 'referenced' in the Application. However, the report is not included. I inquired of Woodfibre-LNG about access to this report to inform my comments on the Application to the EAO. W-LNG replied that they 'Currently, do not have plans to release the Knight Piésold report.' However, according to a senior geoscientist, experienced with EAs in the mining sector, it is 'standard practice' to include such reports, and is important for verification and independent scrutiny of data. As such, in the absence of access to the Knight Piésold report, I as well as the public in general, are unable to obtain an independent expert opinion to inform comments on this aspect of the WLNG Application. Therefore, I REQUEST that the report for the Woodfibre-LNG Geotechnical Assessment by Knight Piésold be made available through the EAO 	Seismic Hazard	The Woodfibre LNG Geotechnical Report by Knight Plésold is available on the EAO website.

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