

Proposed Woodfibre LNG Project – Comments #101 – 200, Table 2 of 17

The following table includes Woodfibre LNG Limited’s responses to comments #101 - 200 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	EAO’s Response
101	February 6, 2015	Geri Avis - Squamish, British Columbia	I am in support of this project as describe in this environmental assessment application.	LNG Project	Thank you, this comment is noted.	
102	February 6, 2015	Personal Information Withheld - Howe Sound, British Columbia	Disgusting that Woodfibre LNG is hosting posh parties for the liberals during the EA assessment. Where is the moral compass of our elected officials? Thoroughly disappointed in this skewed process that is obviously jaded. What do you take the citizens of BC for? Time for a new environmental process that is properly democratic.	Political Donations	This comment is noted. Woodfibre LNG Limited acknowledges it has made political donations as well as donations to community events, sports groups and other organizations. Woodfibre LNG Limited is dedicated to providing legacy benefits for the communities in Howe Sound in the areas of sport, arts, culture, and heritage. Community investments to date have included active engagement of community groups and financial support to their community focused events. Between 2013 and October 2014, Woodfibre LNG invested close to \$90,000 in grants to community groups.	
103	February 6, 2015	Vel Anderson - Gibsons, British Columbia	To import LNG, will companies be required to get an import license or order and a "Certificates of Public Convenience and Necessity" from the NEB? What qualifications must a company have in order to be granted an import license or order and a "Certificates of Public Convenience and Necessity" from the NEB? As the project will transfer LNG to marine carriers operated by third party shipping companies engaged in the business of LNG transport, is this import license or order and a "Certificates of Public Convenience and Necessity" from the NEB granted to the LNG shipping company or to the Company receiving the LNG, as the two may have different owners?	Export License	Woodfibre LNG Limited interprets this comment to be in reference to an export license, as Woodfibre LNG Limited will not be importing LNG and the National Energy Board (NEB) does not have jurisdiction to issue licences in other countries. Woodfibre LNG received an Export License from the NEB (Licence GL-304) in March 2014. With the exception of the export activity authorized under the Export License, Woodfibre LNG’s activities are not regulated by the NEB and a Certificate of public convenience and necessity is not required.	
104	February 6, 2015	Vel Anderson - Gibsons, British Columbia	Regarding the proposed LNG business at Woodfibre, has the Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) been involved with this process, if so at what level? Will TERMPOL be implementing any special precautionary measures? If so, what are the special precautionary measures?	TERMPOL	The voluntary TERMPOL process that Woodfibre LNG will complete for the Project is a separate process from the environmental assessment process. The TERMPOL review will include a comprehensive risk assessment to ensure safety of vessel transits from terminal to open ocean; the development of recommendations to improve safety and minimize risk; and, the development of detailed safety procedures and emergency response plans. Woodfibre LNG Limited anticipates that the TERMPOL review process will be completed in summer 2015. Woodfibre LNG Limited has committed to implementing all recommendations from the TERMPOL review process.	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
105(i)	February 6, 2015	Pat and Richard Grass - Lions Bay, British Columbia	Please deny the permit to build this LNG plant, because monetary compensation to British Columbians in the form of taxes and the promise of jobs will never be enough incentive to risk life and habitat in and around Howe Sound.	LNG Project	<p>Thank you for your comments.</p> <p>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.</p> <p>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.</p> <p>Section 11.0 of the Application includes an assessment of potential Project-related accidents and malfunctions. Woodfibre LNG Limited also provided additional information regarding accidents and malfunctions to the Environmental Assessment Office on April 29, 2015.</p> <p>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.</p> <p>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.</p>	

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105(ii)	February 6, 2015	Pat and Richard Grass - Lions Bay, British Columbia	<p>A plant such as this will use tremendous amounts of energy, spew treated warm seawater into Howe Sound's fragile recovering ecosystem 24 hours a day, disrupt local boating, emit tonnes of greenhouse gases into the atmosphere, present an insidious and constant stress of having (even presented as a "technologically small chance" of) a potentially catastrophic disaster, among many other negative outcomes. Yes, it may have taken precautions and put up a bond and insurance and presented a good case to EOA and local government, but that will never be sufficient to cover any risk of loss of life or habitat, much less any damage to the future of the area as a recreational, residential or natural environment. The only risk I am willing to accept from the LNG plant in Howe Sound is zero.</p>	Effects of the Project on the Environment	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The assessment of marine transport (Section 7.3) concludes that with mitigation measures, there are no significant Project-related adverse effects to marine transport.</p> <p>For more information, please see the following sections of the Application:</p> <ul style="list-style-type: none"><li>• Section 7.3.2.3.4.4 Recreational Boating,</li><li>• Section 7.3.2.3.4 Small Vessel Traffic</li><li>• Section 7.3.3.2.2.2 Interference with Commercial Transport, Fisheries, and Recreational and Tourism Activities</li><li>• Section 7.3.3.2.3 Proposed Measures to Mitigate Project-related Effects. This section includes measures to reduce navigation hazards from the Project and minimize Project-related disruption of marine-based recreational activities.</li></ul> <p>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.</p>	

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105(iii)	February 6, 2015	Pat and Richard Grass - Lions Bay, British Columbia	<p>Does the Environmental Assessment Office even consider the reputation of the proposing company and its owner in its assessment? Does our provincial government (not the LNG industry itself) have the means and manpower to adequately monitor, fine, and receive compensation for the effects from such an industry on all of our water, land, and creatures? No.</p> <p>This is our chance to say "No to re-industrialization of Howe Sound." Please say that for British Columbia.</p> <p>Vehemently and sincerely, Pat and Richard Grass Lions Bay</p>	Corporate Ownership	<p>The Woodfibre LNG Project is owned by Woodfibre LNG Limited, a privately held Canadian company based in Vancouver with a Community Office in Squamish.</p> <p>Woodfibre LNG Limited is a subsidiary of Pacific Oil and Gas (PO&amp;G) which develops, builds, owns and operates projects throughout the energy supply chain.</p> <p>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.</p>	
106	February 6, 2015	Deborah Coleman - Squamish, British Columbia	<p>I have lived in squamish over 30 years and have seen the return of fish whales dolphins and more. The air is much easier to breathe since the closure of Woodfibre. We are the recreation capital so why wood we want to destroy our beautiful natural environment with LNG Project. I SAY NO.</p>	Effects of the Project on the Environment	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Please also refer to the Air Quality and Marine Mammals information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	

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107	February 6, 2015	Personal Information Withheld - Squamish, British Columbia	I have lived in squamish over 30 years and have seen the return of fish whales dolphins and more. The air is much easier to breathe since the closure of Woodfibre. We are the recreation capital so why wood we want to destroy our beautiful natural environment with LNG Project. I SAY NO.	Effects of the Project on the Environment	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Please also refer to the Air Quality and Marine Mammals information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
108(i)	February 6, 2015	Personal Information Withheld - Bowen Island, British Columbia	I am opposed to the LNG Project. To begin with, I don't support fracking because it uses other sources of energy to drill for the gas, it wastes our precious resource of water and it pumps chemicals into our earth.	Hydraulic Fracturing	<p>Thank you for your comments.</p> <p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p>	



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108(ii)	February 6, 2015	Personal Information Withheld - Bowen Island, British Columbia	Although it is considered cleaner than some other fuels, the burning of LNG will still contribute to climate change.	Climate Change	<p>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 Limited 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<sup>1</sup>.</p> <p>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.</p>	
108(iii)	February 6, 2015	Personal Information Withheld - Bowen Island, British Columbia	I am against the establishment of the LNG plant at Squamish because I believe the treatment process temperature changes to the water will be harmful to the sea life.	Effects of the Project on Marine Life	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	

<sup>1</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

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108(iv)	February 6, 2015	Personal Information Withheld - Bowen Island, British Columbia	I don't want huge tankers in Howe Sound an area where whales are now returning and an area enjoyed by local boaters and tourists.  Keep Howe sound beautiful! Our government should be promoting eco-tourism and other ways of creating jobs by investing in clean sources of energy that do not destroy our environment.	Marine Transport	<p>There will be three to four LNG carriers that transit to the Woodfibre Project per month. Each transit of an LNG carrier, between the entrance to Howe Sound and the Woodfibre LNG terminal, is anticipated to last 2.5 hours in duration. The loading of each LNG carrier is anticipated to be complete within 24 hours.</p> <p>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 Limited 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 m 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 manoeuvres at very short notice.</p> <p>Please also refer to Public Safety, Marine Transport and Marine Mammals information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments</p>	
109(i)	February 6, 2015	Ken Money - Brackendale, Squamish, British Columbia	Wondering if Nexin beach is and was such an expensive and embarrassing situation directly because of a toxic company who used Squamish and left us with the mess, why is this project any different.	Environmental Legacy	<p>Thank you for your comments.</p> <p>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.</p> <p>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.</p>	
109(ii)	February 6, 2015	Ken Money - Brackendale, Squamish, British Columbia	Secondly why would citizens of Squamish wish to support tracking anywhere let alone in our town.	Hydraulic Fracturing	<p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p>	

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109(iii)	February 6, 2015	Ken Money - Brackendale, Squamish, British Columbia	If there is any reason for LNG to come into town other than greed please let me know.	LNG Industry	<p>Thank you for the question.</p> <p>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.</p> <p>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.</p> <p>Please refer to Section 2.6 Project Benefits of the Application. Woodfibre LNG Limited will create local jobs, contribute to the economy through direct and indirect taxes, contribute to community development and provide ecological benefits.</p>	
109(iv)	February 6, 2015	Ken Money - Brackendale, Squamish, British Columbia	I am also curious to why no one is talking about what is in the pipes that are coming through town. If someone can post a list of the chemicals that will come through our estuaries.	Pipeline	<p>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:</p> <p><a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p>	
110(i)	February 8, 2015	Personal Information Withheld - Squamish, British Columbia	<p>WLNG has the potential to positively impact the community of Squamish. What will be important to me is three things.</p> <p>1) Will WLNG play a supportive role in the development of life improvements in the community.. Woodfibre in the past not just employed people, they where apart of quality of life in town.. Festivals, sports teams, and development of many of the amenities we enjoy currently. (How much actual involvement is my question will the prominent help with our schools, parks, facilities and other forms of infrastructure. ie are they Team Players?)</p>	Community Benefits	<p>Thank you for your comments.</p> <p>Woodfibre LNG Limited is dedicated to providing legacy benefits for the communities in Howe Sound in the areas of sport, arts, culture, and heritage. Community investments to date have included active engagement of community groups and financial support to their community focused events. When evaluating community development opportunities, Woodfibre LNG Limited has prioritized opportunities that are recreation and education based, as well as those opportunities that are youth focused. Between 2013 and October 2014, Woodfibre LNG invested close to \$90,000 in grants to community groups.</p> <p>Please refer to Section 2.6.8 Community Development of the Application for more detail on the community groups that received funding from Woodfibre LNG Limited prior to the submission of the Application.</p>	



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110(ii)	February 8, 2015	Personal Information Withheld - Squamish, British Columbia	2) IN BC our public education program has been underfunded according to recent reports. The LNG industry can help directly and indirectly to improve the situation. If i where the prominent, i would make it a requirement of where their financial support will go...directly to community facilities and schools..	Community Benefits	<p>Thank you for the comments.</p> <p>The allocation of funding for public education is determined by the BC government. Woodfibre LNG is, however, providing direct support towards local post-secondary research and skills training programs.</p> <p>For example, in the summer of 2014, Woodfibre LNG funded three Quest University Canada research projects that will benefit the local Squamish environment and help us build a better project.</p> <p>Khoya Craig (class of 2016): examined fish spawning habitats and terrestrial biodiversity at the Woodfibre site, Squamish Terminals and the Mamquam River</p> <p>Daniella Smith (class of 2016): researched psychological factors related to Woodfibre LNG's community consultation process, carried out over Summer 2014</p> <p>Kyle Kirkegaard (class of 2015): explored and developed recommendations for future management of landfills at the Woodfibre site.</p> <p>Woodfibre LNG is looking to future opportunities in 2015 and beyond.</p>	
110(iii)	February 8, 2015	Personal Information Withheld - Squamish, British Columbia	<p>3) The property has been an eye soar for some time.. glad to see it will be re-mediated and the surrounding areas visual appeal improved. Can they help more in the remediation of other community areas.. Let us hope.</p> <p>Short and sweet, subject to positively impacting quality of life for the community. I will support the export facility.</p>	LNG Project	<p>Thank you, this comment is noted. Woodfibre LNG Limited is also in talks with local Streamkeepers regarding the removal of additional creosote piles at other sites within Howe Sound.</p>	
111	February 8, 2015	Personal Information Withheld - Squamish, British Columbia	<p>I think what people tend to forget is that there was a pulpmill on that site for almost 100 years and it had almost no impact on the environment so an LNG plant, by comparison,would have even less. Ships and barges loaded with dangerous chemicals have been going up and down Howe Sound for many decades without incidence. Freighters go to Squamish Terminals still. Marine life is unaffected.</p> <p>I think the biggest gain to the environment is to have some plant in the developing world switch from oil to natural gas from Woodfibre LNG, a huge benefit to global climate change.Those nations can't be stopped from developing so why not offer them the cleanest alternative?</p>	LNG Project	<p>Thank you, this comment is noted.</p>	

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112(i)	February 8, 2015	Kim Hauner - Bowen Island, British Columbia	<p>Sirs</p> <p>I am a resident of Bowen Island and I believe our community will be directly affected in a negative way by the project. We moved to this location to be away from the effects of projects like these. It was not long ago that Woodfibre itself was the source of pollution in the area, and when it finally improved it provided great relief to all residents of the area - flora and fauna. It is very disappointing to find that another source of pollution will be installed in its place. With this pollution will be increased marine traffic and other hazards.</p>	LNG Project	<p>Thank you for your comments.</p> <p>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.</p> <p>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.</p> <p>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).</p> <p>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.</p> <p>According to the Canadian Coast Guard, there were a total of 12,909 large vessel movements in Howe Sound in 2013, all enabled by existing navigational aids along the route. The Woodfibre LNG Project will bring three to four LNG carriers to the site each month.</p> <p>Woodfibre LNG Limited has committed to further consultation with recreation stakeholder groups in Howe Sound to identify concerns and, where practical, additional mitigation measures to reduce effects.</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
112(ii)	February 8, 2015	Kim Hauner - Bowen Island, British Columbia	<p>Politically it is clear that the policy developed by our government is to find ways to export energy found in the land to fund itself. This policy then makes it impossible to assess the value of a project under any other light. People, land, culture, nature, animals who find themselves in their path simply become obstacles that must be removed and a process such as this becomes the means and justification for doing it.</p> <p>I would like to debate the merits of the project, but clearly the debate was closed long before it was brought to the public. Your PR exercise is being executed to bring the appearance of democracy. It is not working. If you really want to engage the public and have an informed discussion, then you must be prepared to listen. Saying it is not the same as doing it.</p>	LNG Industry	<p>Thank you for the comment.</p> <p>Woodfibre LNG understands that both the federal and provincial environmental assessment processes are substantive processes to evaluate the potential impact of a project on the environment, to ensure that the project has been well-conceived given consideration to alternative designs and input from government agencies, regulators, municipalities and First Nations, as well as the public, and to ensure that appropriate mitigation strategies are in place to manage any such impacts. As a proponent, Woodfibre LNG takes this process seriously.</p> <p>Woodfibre LNG has undertaken public consultation in the form of more than 300 community meetings, two telephone town halls, three rounds of formal public consultations, and has opened a Community Office in Squamish to respond to questions. Woodfibre LNG also regularly engages the public through its web site (woodfibrelng.ca), email, and Facebook page.</p> <p>A public consultation report will be filed with the EAO in accordance with the environmental assessment (EA) process.</p> <p>In response to public consultation, Woodfibre LNG has made meaningful changes to the Project. For example, in response to concerns about the possibility that the LNG facility would run on a gas turbine, Woodfibre LNG committed to powering the facility plant using electricity from BC Hydro. This decision will reduce greenhouse gas emissions by about 80 per cent, and will help make Woodfibre one of the cleanest LNG plants in the world.</p> <p>Public participation in the EA process helps to ensure that community values and public goals for community development are considered in project planning and decision-making.</p>	
113(i)	February 8, 2015	Dawn Lecky - Squamish, British Columbia	<p>My concerns for the plant are how much noise will be generated for the marine life to deal with.</p>	Effect of Noise on Marine Life	<p>Thank you for your comments.</p> <p>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. 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.</p> <p>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.</p> <p>Please also refer to the Marine Mammals information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
113(ii)	February 8, 2015	Dawn Lecky - Squamish, British Columbia	How big of an environmental impact will this project have with the consumption of power and water used to run the project how many chemicals and change in water temperature will affect our marine life and the marine food chain as it is currently rebuilding itself with the return of whales to our sound. The danger our coast will be put under for a company which has an appalling record regarding environmental stewardship and human abuses.	Effects of the Project on Marine Life	<p>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.</p> <p>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.</p> <p>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.</p> <p>The Woodfibre LNG Project is owned by Woodfibre LNG Limited, a privately held Canadian company based in Vancouver with a Community Office in Squamish.</p> <p>Woodfibre LNG Limited is a subsidiary of Pacific Oil and Gas (PO&amp;G) which develops, builds, owns and operates projects throughout the energy supply chain.</p> <p>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.</p> <p>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.</p>	
114	February 8, 2015	Personal Information Withheld - Squamish, British Columbia	<p>This fossil fuel project has no place in Squamish. Not enough taxes, not enough jobs would make making Howe Sound a carbon export for Asia and increasing fracking in BC worth it.</p> <p>There are sensitive marine and terrestrial habitats that this projects will destroy and the gain only goes to the industry - not the BC or Canadian public.</p> <p>I am opposed wholeheartedly to this project.</p>	LNG Project	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p> <p>Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response												
115(i)	February 8, 2015	Personal Information Withheld - Squamish, British Columbia	Dear Sir/Madam, With regards to Nitrogen Oxide, which is created during the burning of the natural gas used to process LNG, what will be the total levels expected for the Woodfiber LNG site per annum? My understanding is that the Kitimat LNG site burns 2.5 times more natural gas than is consumed in Vancouver annually; will the Woodfiber LNG site burn the same amount?	Effects of the Project on Air Quality	<p>Thank you for your comments.</p> <p>The Woodfibre LNG Project will be powered by electricity from BC Hydro. By powering the plant with electricity, instead of natural gas, Woodfibre LNG will reduce its greenhouse gas emissions by about 80%. This will make Woodfibre LNG one of the cleanest LNG facilities in the world.</p> <p>The majority of Woodfibre LNG air emissions will come from elements removed from the natural gas prior to liquefaction, which are incinerated.</p> <p>Estimated emissions in tonnes per year:</p> <table><tr><th></th><th>Electric Drive</th><th>Gas Turbine</th></tr><tr><td>GHG</td><td>80,000</td><td>450,000</td></tr><tr><td>NOx</td><td>20</td><td>310</td></tr><tr><td>SOx</td><td>17</td><td>17</td></tr></table>		Electric Drive	Gas Turbine	GHG	80,000	450,000	NOx	20	310	SOx	17	17	
	Electric Drive	Gas Turbine																
GHG	80,000	450,000																
NOx	20	310																
SOx	17	17																
115(ii)	February 8, 2015	Personal Information Withheld - Squamish, British Columbia	Nitrogen Oxide is associated with acid rain, which is known to negatively impact local waterways/habitat. What related impacts to local air/waterways are anticipated?	Effects of the Project on Air Quality	Section 5.2 Atmospheric Environment (Air Quality) of the Application includes nitrogen oxide, in the form of nitrogen dioxide, in the assessment. Even when combined with background concentrations, the predicted concentration of nitrogen dioxide does not exceed the ambient air quality criteria (Table 5.2-17). The residual effects are considered negligible or not significant.													
115(iii)	February 8, 2015	Personal Information Withheld - Squamish, British Columbia	In addition, what are the total categories and amounts of volatile organic compounds forecasted from Woodfiber LNG, including carbon monoxide and sulphur dioxide, and their impacts on local air/water quality?	Effects of the Project on Air Quality	<p>Please refer to Table 30 in Appendix 5.2-4 (Air Emission Details) of the Application for the total air emissions of VOCs, CO and SO<sub>2</sub> from the Project.</p> <p>Model predictions of speciated VOCs emissions can be found in Appendix 5.2-5 (Volatile Organic Compounds Model Predictions) of the Application.</p> <p>Model predictions and effects assessment for CO and SO<sub>2</sub> emissions can be found in Sections 5.2.3.3 and 5.2.3.4 of the Application.</p>													
115(iv)	February 8, 2015	Personal Information Withheld - Squamish, British Columbia	<p>In the larger picture, how will BC lower actual carbon emissions with this shift towards the LNG industry, given that "natural gas found in shale formations, which requires hydraulic fracturing to extract, leaks and vents about 50 per cent more methane during production than conventional drilling."</p> <p><a href="http://theyee.ca/News/2014/05/23/Natural-Gas-Bridge-to-Nowhere/">http://theyee.ca/News/2014/05/23/Natural-Gas-Bridge-to-Nowhere/</a></p> <p>I understand that there will be no gas extraction/fracking at the Woodfiber LNG site, however it is hard to support a facet of the industry when the whole of the industry is contributing to the current global climate crises. Other than purchasing carbon credits offered to the BC LNG industry, how will Woodfiber LNG contribute to decreasing carbon emissions outlined in the BC Liberals long-term goals for same?</p>	GHG Emissions	<p>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 Limited 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<sup>2</sup>.</p> <p>A literature review of key studies of comparing emissions from natural gas and coal can be found here:</p> <p><a href="http://www.capp.ca/getdoc.aspx?DocId=215278&amp;DT=NTV">http://www.capp.ca/getdoc.aspx?DocId=215278&amp;DT=NTV</a></p> <p>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.</p> <p>Please also refer to the Air Quality information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>													

<sup>2</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).



Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
116	February 9, 2015	David Lane - Squamish, British Columbia	Let's not engage in the short sighted stupidity of promoting environmentally destructive energy sources at the expense of sustainable industries like tourism. What would Germany do?	LNG Industry	<p>Thank you for your comments.</p> <p>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 Limited 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<sup>3</sup>.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	

<sup>3</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
117	February 9, 2015	Personal Information Withheld	Pumping water thru the system will raise the temperature of Howe Sound and suck living animals in and kill the source of food for food chain...	Seawater Cooling System	<p>Thank you for your comment.</p> <p>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<sup>3</sup> (for context, this volume is approximately 5% or 1/20<sup>th</sup> of an Olympic-size pool). This volume will not increase over time.</p> <p>The intake will be:</p> <ul style="list-style-type: none"> <li>located at a depth of more than 25 metres, which is below the depth where marine organisms are found in the greatest numbers</li> <li>located approximately 2 metres above the seafloor, above sediment and bottom-dwelling organisms</li> <li>covered by a coarse screen, which will stop larger marine life such as adult fish and seals from entering the pipe</li> </ul> <p>Seawater will enter the intake at a velocity of 0.1 metres per second, which is less than the swim speed of adult fish.</p> <p>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.</p> <p>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.</p> <p>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.</p>	
118	February 9, 2015	Personal Information Withheld - Britannia Beach, British Columbia	This entire region should be a provincial park and protected area. And that compressor station inside our city limits is a clear indication of how much the Malaysian baked company truly cares ar safety . Do it differently or dont do it at all.	Howe Sound as a Protected Area Pipeline	<p>Thank you for your comment.</p> <p>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.</p> <p>Woodfibre LNG notes that the compressor station is a part of 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:  <a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p>	

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119(i)	February 9, 2015	Pauline Koeplin - Bowen Island, British Columbia	The first thing I want to say is the LNG Woodfibre project is a fracking mess. There are just too many risks. Do we really want to Save Howe Sound Again? We just started getting back our fish and dolphins, do we really want to lose them again? Even if LNG companies say "it's totally safe there are no risks", I don't believe them, The impact it is going to have on the environment is so extreme, I looked through the Environmental assessment folders and they don't really take the real risks into consideration. What about the effect on the marine life in the Howe Sound area and the effect on the environment around the loading area up in Squamish, it could totally change the space.	Effects of the Project on the Environment	<p>Thank you for your comments.</p> <p>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.</p> <p>The potential effects of the Project on marine life in Howe Sound have been assessed in the following sections of the Application: Section 5.10 Marine Water Quality, Section 5.16 Marine Benthic Habitat, Section 5.18 Forage Fish and Other Fish (Marine) and Section 5.19 Marine Mammals. The assessments conclude that, with mitigation measures in place, there will be no significant adverse effects.</p>	
119(ii)	February 9, 2015	Pauline Koeplin - Bowen Island, British Columbia	It also has a great effect on global warming. They cool down the natural gas so it is very cold and cant leak but when it contacts air it turns as light as air, that means if when transferring the gas on to the tankers if one little drop falls and then turns as light as air it goes up in to the atmosphere and keeps the suns heat in creating global warming. Natural gas' main component methane is 80 times more damaging then CO2. I just think that we should choose what is right and not what is dangerous. Howe Sound is a very populated area and even a small leak could have a great impact on the surrounding area.	Climate Change	<p>At Woodfibre LNG, safety is the number one priority.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Subject to the recommendations of Transport Canada Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL), Woodfibre LNG Limited 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 m 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 manoeuvres at very short notice.</p> <p>Please also refer to Public Safety, Marine Transport information sheet that have been prepared as part of the Woodfibre LNG Limited response to public comments</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
120(i)	February 9, 2015	Jake Mathauser - Squamish, British Columbia	I am a small business owner in Squamish, B.C. I am an avid fisherman/outdoorsman who has lived here for 34 years. I have witnessed many environmental changes to the town during that period. When I was young I would go to the blind channel shoreline hoping to find crabs, clams, or any kind of sea life but there was none. It stayed this way until roughly 10 years ago when the Woodfibre pulp paper mill shut down FOR EVER. Almost instantly I noticed the return of barnacles on the rocks and bladder kelp growing around the tide line. Soon after that I noticed herring eggs coating the new seaweed along with many species of fish (cutthroat trout, sea run dolley varden, and juvenile chinook salmon) which were never here in such abundance. With all of the new small life returning in healthy numbers, large species started to return. I was overjoyed when I heard for the first time in years that orca whales were sighted hunting in the northern end of Howe Sound. I witnessed dolphins on numerous occasions AND a gray whale feeding in the blind channel which was a highlight of my life living in this town. I am so happy that our beautiful environment is regaining its health and the natural life that has been absent for so many years is returning in abundance. I was sad to learn that there was plans to reintroduce heavy industry into Howe sound. I am deeply concerned that the new ocean life will begin to disappear if the LNG plant goes ahead. I cringe at the thought of having warmed chlorinated water dumped into the sound after the cooling process.	Effects of the Project on the Environment	<p>Thank you for your comments.</p> <p>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.</p> <p>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.</p> <p>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).</p> <p>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.</p> <p>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<sup>3</sup> (for context, this volume is approximately 5% or 1/20<sup>th</sup> of an Olympic-size pool). This volume will not increase over time..</p> <p>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 response to public comments.</p>	
120(ii)	February 9, 2015	Jake Mathauser - Squamish, British Columbia	I also cannot justify the expansion of the existing pipeline that will run underneath our vulnerable estuary and the life line of the valley - The Squamish river. I am very concerned that if the fragile BC LNG market crashes this new pipe line has the potential to transport bitumen from the Alberta tar sands to ship from the WLNG site and has the potential risk of a major spill which would destroy all life in the Howe sound.	Pipeline	<p>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:  <a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p> <p>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.</p> <p>In addition, in January 2015, the Government of British Columbia introduced a regulation that prohibits natural gas pipelines built for proposed Liquefied</p>	



Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
					Natural Gas (LNG) terminals from carrying oil or bitumen.	
120(iii)	February 9, 2015	Jake Mathauser - Squamish, British Columbia	I feel that it is unfair to the salmon and the eagles (the life blood of our ecosystem) who have been returning for thousands of years, long before man has ever dreamt of putting prices on the environment. They have been given no voice in the matter and in my opinion will endure the heaviest impacts if there is an inevitable disaster. In turn once they have disappeared from our rivers our forests will then suffer followed by everything else that depends on our unique ecosystem. I could honestly go on and on about how this project could negatively impact our environment and I strongly believe that the potential risks far outweigh the potential benefits.	Safety	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.	
121	February 9, 2015	Michael Maser - Gibsons, British Columbia	I and my wife, residents of Gibsons BC, are totally opposed to this project.  The planned production and transportation of LNG is replete with significant risks for environmental-ecological damage, immediate communities, and the transportation service to the Sunshine Coast, on which all Sunshine Coast residents, ourselves included, depend.  These risks are neither mitigated by credible plans by the proponent nor emergency safeguards overseen by the provincial and federal governments.  NO! to the Woodfibre LNG project.	LNG Project	Thank you for your comments.  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 (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 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.  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.  Please also refer to Public Safety and Marine Transport Information Sheet that have been prepared as part of the Woodfibre LNG Limited response to public comments.	



Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
122	February 10, 2015	Jack Liu - Houston, Texas	<p>I visited your open house at Squamish on Jan 28, 2014. I would like to provide a couple of comments for piping/loading systems at proposed LNG terminals.</p> <p>The Woodfibre LNG is located at a river delta and at an area prone to ground movements. Earthquakes, avalanches, and floods could trigger ground movements (lateral spreading, mudslides/landslides, ground settlement, etc.). As I know more about the site and plant layout, the piping fluidly connecting liquefaction plant and floating storage vessels concerns me. A conventional piping system (i.e., fixed at ends with expansion loops to accommodate thermal expansion and contraction) and rigid loading arms are vulnerable and could result in severe consequence. Liuxon has a proprietary system that can solve the issues. Relaxing LNG transfer system has the following features:</p> <ol style="list-style-type: none"><li>1. An inclined transfer pipeline with a free end around the loading platform</li><li>2. Flexible hoses for accommodating both pipe end displacements and vessel motions</li><li>3. Automatic vapor removal within an inclined pipeline during non-transfer period. The system can avoid a re-circulation line and re-circulation pump.</li></ol> <p>This system can tolerate certain amount of ground movements and avoid spills under a designed natural disaster event. This system not only reduces the cost (both construction and operation), but also enhances the safety. In addition, replacing hoses is a simple operation and can be done by the plant operator without involving outside contractors and creating significant noise and gas flare.</p> <p>By the way, locating the transfer pipeline inside a small tunnel (using micro-tunneling technique) can avoid disturbance to natural habitats on the seabed. At a desirable water depth (15 m or more), a vertical reinforced concrete shaft rises above the sea level and hosts cryogenic hoses that extend from the free end of the transfer pipeline under the seabed to ship manifolds onboard a LNG tanker. The system is the only robust and cost-effective solution for a site prone to tsunami (such as Pacific Northwest LNG). An elevated design (piping on a trestle or suspended bridge) is deemed to fail (e.g., the Sendai LNG regasification terminal devastated in March 2011) or is very costly and tremendously affecting the environment of marine life (e.g., Gorgon LNG in Australia).</p> <p>The relaxing LNG transfer system has been developed by Liuxon and approved by American Bureau of Shipping.</p>	FSO Loading System	<p>Thank you for your interest.</p> <p>The best way to get in touch with the Woodfibre LNG engineering team about your product is to register on the Woodfibre LNG Business Directory.</p> <p>Once you've signed up, you'll receive email updates about upcoming contracts and opportunities, as well as events like the Business Information Session we held in Squamish in November 2014. More than 100 local businesses and contractors came to that event to hear what they could do to work on the Project.</p> <p>Please follow the link for more information and to register for the Business Directory: <a href="http://www.woodfibrelng.ca/work-with-us/business-directory/">http://www.woodfibrelng.ca/work-with-us/business-directory/</a></p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
123(i)	February 10, 2015	Garrett Gosselin - Squamish, British Columbia	<p>I do NOT want the Woodfibre LNG project to go ahead, nor do I want any drilling or any work to be done in or around the Squamish Estuary</p> <p>I am a tourism based business owner. My clients come to Squamish and Whistler for the natural beauty, including the forests, clean air, clean water, wildlife, sea life, ocean, mountains, and relative "wild feeling" of the area. Having an industry like the Woodfibre LNG plant will detract from this and could affect all of the above.</p> <p>Tourism is one of the biggest industries in the Sea to Sky corridor, it employs hundreds of people, can be sustainable, and can be around for many years to come, even without fossil fuels.</p>	Effects of the Project on Tourism	<p>Thank you for your comments.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
123(ii)	February 10, 2015	Garrett Gosselin - Squamish, British Columbia	<p>I also do NOT want the Woodfibre LNG plant for personal reasons. I like to recreate in the area, including sea kayaking, kiteboarding, fishing/crabbing/prawning, and snorkeling in Howe Sound. I do not want the Woodfibre LNG plant to negatively affect the ocean, which I believe, no matter the precautions taken, I believe it is impossible to have this type of industry without negatively impacting the environment and surround ocean.</p>	Effects of the Project on Recreation, Environment	<p>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.</p> <p>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.</p> <p>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 Recreation information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
123(iii)	February 10, 2015	Garrett Gosselin - Squamish, British Columbia	<p>I also do not approve of fracking and the negative impacts fracking has on the ground water. I am not sure where the gas is going to come from but I would guess some would be coming from fracking.</p>	Hydraulic Fracturing	<p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>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 &amp; Gas Commission (OGC) regulates these extraction activities under the Oil &amp; Gas Activities Act and related regulations.</p>	

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123(iv)	February 10, 2015	Garrett Gosselin - Squamish, British Columbia	I believe global warming is a serious issue and we should be looking at more sustainable alternatives that are going to help the environment, instead of helping destroy it.	Global Warming	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 Limited 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 <sup>4</sup> .	

<sup>4</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

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124(i)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	<p>We have lived in Squamish for over 7 years. My husband and I are totally against this project.</p> <p>We need to keep fossil fuels in the ground to mitigate uncontrollable climate change effects.</p> <p>The type of community we want to live in is one that is progressively planning for a future that is environmentally responsible. We want to see long term vision not short term solutions as fossil fuels are a temporary economic fix.</p> <p>We are learning that it is becoming clear that there are too few benefits (a handful of jobs and minimal revenue in Municipal taxes) that are outweighed by far too many costs to our environment, our health, and the future economic stability of Squamish.</p> <p>Plus the proposed compressor plant would be a few blocks away from our home in Dentville. It will not be safe so close to our community. We also don't want to see the estuary disturbed. We already see the negative effects of development on wildlife.</p> <p>We work VERY HARD. We pay our taxes. We don't have children but we do worry a lot about children and the future they will have. We care about the legacy we will leave behind to them.</p> <p>We need to think innovative and green. That is where our hard earned tax money should be invested.</p>	LNG Project Pipeline	<p>Thank you for your comments.</p> <p>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 Limited 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<sup>5</sup>.</p> <p>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):</p> <p><b>CONSTRUCTION JOBS</b></p> <ul style="list-style-type: none"> <li>• Create 650+ jobs each year of construction.</li> <li>• Create an additional 1,080+ jobs (indirect* and induced** employment) during the construction phase of the Project.</li> </ul> <p><b>LONG-TERM OPERATION JOBS</b></p> <ul style="list-style-type: none"> <li>• Create 100+ local jobs during operation.</li> <li>• Create an additional 330+ local jobs (indirect* and induced**) during operation.</li> </ul> <p>*Indirect impacts arise from changes in activity for suppliers.</p> <p>**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.</p> <p>Accounting and Consulting firm MNP found the following economic benefits of the project (2014 CAD):</p> <ul style="list-style-type: none"> <li>• \$83.7 MILLION: Estimated in tax revenue for all three levels of government during the construction phase of the Project.</li> <li>• \$86.5 MILLION: Estimated in tax revenue for all three levels of government per year of operation.</li> <li>• \$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</li> <li>• \$122.8 MILLION in GDP per year during operation.</li> </ul> <p>Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments. Woodfibre LNG notes that comments on the compressor station and pipeline are a part of 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: <a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p>	
124(ii)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	150 million tonnes of hot, chlorinated water will be expelled into the Howe Sound annually.	Seawater Cooling System	<p>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.</p> <p>All discharges to the marine environment will meet or exceed applicable</p>	

<sup>5</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

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					<p>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.</p> <p>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<sup>3</sup> (for context, this volume is approximately 5% or 1/20<sup>th</sup> of an Olympic-size pool). This volume will not increase over time.</p> <p>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.</p>	
124(iii)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	Nitrogen and Oxides (smog) and Sulfur dioxides too. There will be a 377' tall flares stack, including a terrible sulfur smell.	Effect of the Project on Air Quality	<p>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.</p> <p>The Project is using electric power, which is anticipated to result in an 80% decrease in greenhouse gas (GHG) emissions and 90% reduction in other air pollutants (such as nitrogen oxides – smog) compared to gas turbines.</p> <p>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.</p> <p>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.</p> <p>Please also refer to the Air Quality information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	



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124(iv)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	The plant, tankers and pipeline will all be dangerous too. Big LNG fires are near-impossible to put out.	Safety	<p>At Woodfibre LNG, safety is the number one priority.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	
124(v)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	The seawater for cooling is also a risk. It's damaging to marine life, it will be sucked into the plant, boiled, doused with chemicals and then blasted back into the Howe Sound at the rate of 17,000 tonnes and hour. This will reverse the recent revival of marine life in the Howe Sound.	Effects of the Project on Marine Life	<p>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.</p> <p>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.</p> <p>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<sup>3</sup> (for context, this volume is approximately 5% or 1/20<sup>th</sup> of an Olympic-size pool). This volume will not increase over time.</p> <p>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</p>	

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124(vi)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	There will also be an effect on our property value too, 10%-40% reduction, according to Vancouver business organization, CRED.	Effects of the Project on Real Estate	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	
124(vii)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	We have many alternatives to fossil fuels, let's focus on those. Many LNG plants have been turned down, mainly for safety concerns and risks. Say NO to Woodfibre LNG and to fracking!	LNG Industry	<p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>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 Limited 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<sup>6</sup>.</p>	
125	February 10, 2015	Personal Information Withheld - Dentville, British Columbia	Squamish can only benefit from a diverse economy. For once in 23 years here I'd like to not have to commute to work! If this were heavy oil I might not be supportive but LNG is right for Squamish.	LNG Project	Thank you, this comment is noted.	

<sup>6</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
126(i)	February 10, 2015	Bonnie Nicol - Gibsons, British Columbia	<div>1. There are giant holes in the new improved proponents submission.</div> <div>2. Given the new, new proposal for the Woodfibre plant to be on land what studies has the proponent done in regard to landslides and seismic activity?</div>	Natural Hazards	<div>Thank you for the comments.</div> <div>Woodfibre LNG Limited looked at several sites for its project before finding one that was the right fit for an LNG facility. Home to industry and shipping for more than 100 years, the Woodfibre site features: industrial zoning, a deepwater port, access to a FortisBC pipeline network, and access to BC Hydro electricity.</div> <div>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.</div> <div>The Project will be designed:</div> <div><div>• For a one in 2,475 year earthquake.</div><div>• In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</div><div>• 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</div><div>• 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.</div><div>• Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</div><div>• Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</div><div>• Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</div><div>• 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.</div><div>• 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.</div><div>• Project components will be designed to accommodate a sea level rise of 0.5 metres.</div></div>	

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126(ii)	February 10, 2015	Bonnie Nicol - Gibsons, British Columbia	3. Given BC Ferries has not offered any opinion on the route of LNG tankers across their routes it is assumed that all LNG tankers will not be in the waters of Howe Sound during BC Ferries operations. To be specific will the LNG tanker cross routes with BC Ferries from or to Horseshoe Bay from 6 am to 11:00 pm?	Effects of the Project on BC Ferries	<p>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.</p> <p>Yes, it is quite possible that LNG carriers will cross routes with BC Ferries from or to Horseshoe Bay from 6am to 11pm; however, 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).</p> <p>Subject to the recommendations of Transport Canada Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL), Woodfibre LNG Limited 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 m 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 manoeuvres at very short notice.</p> <p>Representatives from BC Ferries were also part of our HAZID identification workshop for TERMPOL.</p>	
126(iii)	February 10, 2015	Bonnie Nicol - Gibsons, British Columbia	4. Given the government of BC is required to do due diligence in an environmental assessment what justification does the government cite in excluding a public meeting on the Sunshine Coast to allow citizens & the Sechelt Nation to publicly comment on the project given we live on Howe Sound?  So many wholes & no answers.	Public Consultation	<p>The location of the EAO Open Houses are determined by the EAO. The Proponent defers to the EAO to answer this question.</p>	<p>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 <a href="#">[Link]</a>.</p>



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127(i)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	<p>Hey Star ... I have composed a short comment for the EAO comment form. I want to be effective but feeling kind of insecure about my verbiage ... imagine that ... lol.</p> <p>This is what I have ... thoughts?</p> <p>I fail to see any positives when it comes to this project. While the world is waking up to the dangers to our planet because of fracking and the LNG industry on the whole, it baffles me how Canada, in particular BC, could not only propose to move forward but to blatantly give the public the impression it is a done deal when it clearly is not! Shame on them!! I am not a scientist but I can see how just one small accident could affect the whole Howe Sound and the inhabitants, both human and creature (above and below water) for many many years to come if not for eternity.</p>	Safety	<p>Thank you for your comments.</p> <p>At Woodfibre LNG, safety is the number one priority.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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 Limited 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<sup>7</sup>.</p> <p>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.</p>	

<sup>7</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

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127(ii)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	We are just recovering from losing so much because of the industrial activity that took place at the Woodfibre site for many years in the recent past. The herring is returning, bringing with them white sided dolphins and orca whales. We have been given a second chance. I do not believe there will be a third so we truly have to get it right this time.	Environmental Legacy	<p>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.</p> <p>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.</p> <p>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).</p> <p>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.</p>	
127(iii)	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	That aside, I cannot comprehend why our leaders would entertain partnering with someone the likes of Sukanto Tanoto. While the rest of the world is starting to smarten up, appears the leaders of my country and province have taken their stupid and greedy pills. Please please please deny the application. You WILL be doing the right thing. Thank you and God bless.	Corporate Ownership	<p>The Woodfibre LNG Project is owned by Woodfibre LNG Limited, a privately held Canadian company based in Vancouver with a Community Office in Squamish.</p> <p>Woodfibre LNG Limited is a subsidiary of Pacific Oil and Gas (PO&amp;G) which develops, builds, owns and operates projects throughout the energy supply chain.</p> <p>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.</p>	

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128	February 10, 2015	Vel Anderson - Gibsons, British Columbia	<p>As the nature and concentration of certain chemicals in many wastes makes them potentially hazardous to the environment and human health. They have characteristics such as flammability, toxicity and corrosivity. They may represent an immediate danger, such as ability to burn skin on contact, or longer-term environmental or human health risks due to accumulation and persistence of toxic substances in the environment.</p> <p>Regarding the Woodfibre facility, both on land and water, may we please have the list that correspond to the above, where they are used, and for what purpose.</p>	Waste Discharges	<p>Thank you for your comments.</p> <p>The Woodfibre LNG facility will require several discharge permits under the Environmental Management Act, for example, permits for the seawater cooling system and wastewater treatment plant. The permits will set limits on the volumes and types of discharges, and will include monitoring and reporting requirements.</p> <p>There is an existing permit for the landfill located on-site that was previously for the Woodfibre Pulp and Paper Mill. Woodfibre LNG will use the landfill during construction and early operations phases of the Project and will comply with the conditions of the permit. The permit includes conditions for total suspended solids, biochemical oxygen demand, pH and dissolved oxygen.</p> <p>In addition, 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.</p> <p>Woodfibre LNG also provided supplemental information to the EAO on the expected waste discharges from the site. That supplemental memo is posted to the EAO website.</p>	
129	February 10, 2015	Personal Information Withheld - Squamish, British Columbia	This project will prove to be an enormous gain to our community. I currently work in this industry and it has provided benefits to my family and community for many years. My voice is for yes!!	LNG Project	Thank you, this comment is noted.	
130	February 11, 2015	Personal Information Withheld - Squamish, British Columbia	As long as the project remains economically viable, meets all regulatory requirements and hopefully exceeds(eg. powered by hydro, etc.) to ensure a best-in-class facility, then I am in support. More prevalent issues is the mitigating the upstream impacts and what society is doing to wean off fossil fuels.	LNG Project	<p>Thank you, this comment is noted.</p> <p>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.</p>	
131	February 11, 2015	Ron Sander - Squamish, British Columbia	I fully support this project. Risk analysis has been conducted for the technical and safety portions of the project and the business opportunity for this project ties hand in glove to the WLNG project. WLNG will be a great benefit to both Squamish and BC, the benefits far outweigh the risks or detractors. Squamish desperately needs projects like this which are clean and economically positive.	LNG Project	Thank you, this comment is noted.	
132(i)	February 11, 2015	Luisa Nitrato Izzo - Squamish, British Columbia	Squamish has spoken. In last November's municipal elections, the community overwhelmingly voted against Woodfibre LNG. Our new mayor, Patricia Heintzman, and all but two of our council members oppose this project. THE PEOPLE OF SQUAMISH DO NOT WANT THIS. Nor do the majority of other communities in Howe Sound. If the BC government insists on pushing the project through, it will be flying in the face of public opinion.	LNG Project	<p>Thank you for the comments.</p> <p>Woodfibre LNG has undertaken public consultation in the form of more than 300 community meetings, two telephone town halls, three rounds of formal public consultations, and has opened a Community Office in Squamish to respond to questions. Woodfibre LNG also regularly engages the public through its web site (woodfibrelng.ca), email, and Facebook page.</p> <p>A public consultation report will be filed with the EAO in accordance with the environmental assessment process.</p> <p>In response to public consultation, Woodfibre LNG has made meaningful changes to the Project. For example, in response to concerns about the possibility that the LNG facility would run on a gas turbine, Woodfibre LNG committed to powering the facility plant using electricity from BC Hydro. This decision will reduce greenhouse gas emissions by about 80 per cent, and will help make Woodfibre one of the cleanest LNG plants in the world.</p>	

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132(ii)	February 11, 2015	Luisa Nitrato Izzo - Squamish, British Columbia	Fracked gas, pipelines and LNG tankers do not belong in Howe Sound. This is an area of outstanding natural beauty. It should be cherished as such and designated a national park, not desecrated as a heavy industrial zone. Let's not turn back the clock. BC, and Canada as a whole, needs to show leadership and move away from the quick-grab short-termism of an extraction-based economy prone to catastrophic boom and bust cycles. What we need is long-term, sustainable jobs in forward-looking, cleaner industries such as tourism and rec-tech.	LNG Project Hydraulic Fracturing	<p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>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 &amp; Gas Commission (OGC) regulates these extraction activities under the Oil &amp; Gas Activities Act and related regulations.</p>	
132(iii)	February 11, 2015	Luisa Nitrato Izzo - Squamish, British Columbia	It is clear th at the economics of WLNG are seriously flawed. The numbers simply do not add up. WLNG promises jobs and tax dollars for the local community, but we all know that both will be minimal. Very little of the money generated by WLNG will stay in the local community -- certainly not enough to outweigh the potentially catastrophic environmental, health and safety risks. Please do not approve this project. The future of Howe Sound, our children and economy is at stake.	Economic Justification of the Projects	<p>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):</p> <ul style="list-style-type: none"> <li>• \$83.7 MILLION: Estimated in tax revenue for all three levels of government during the construction phase of the Project.</li> <li>• \$86.5 MILLION: Estimated in tax revenue for all three levels of government per year of operation.</li> <li>• \$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</li> <li>• \$122.8 MILLION in GDP per year during operation.</li> </ul> <p>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.</p>	

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133	February 11, 2015	Luisa Nitrato Izzo - Squamish, British Columbia	<p>The decision on whether or not to locate an LNG plant in Howe Sound should be guided by the international LNG Terminal Siting Standards document produced by the Society of International Gas Tanker and Terminal Operators (SIGTTO), the world authority on LNG terminal siting standards: <a href="http://www.lngtss.org/standards.html">http://www.lngtss.org/standards.html</a>. Among other points, this document states that "There is no acceptable probability for a catastrophic LNG release"; "LNG ports must be located where they do not conflict with other waterway uses – now and into the future"; "Long, narrow inland waterways are to be avoided, due to greater navigation risk"; and "Waterways containing navigation hazards are to be avoided as LNG ports". The proposed location of WLNG clearly flouts these recommendations. For this reason alone, it should NOT be approved on the grounds of health and safety.</p>	LNG Project	<p>Thank you for the comment.</p> <p>Siting of the Woodfibre LNG facility complies in every way with the Society of International Gas Tanker &amp; Terminal Operators Ltd's (SIGTTO) guidance as the location of the site is not within a narrow waterway as defined by SIGTTO and TERMPOL (Technical Review Process of Marine Terminal Systems and Transshipment Sites).</p> <p><i>Narrow channel/waterway</i></p> <p>TERMPOL specifies a body of navigable water of width four times the vessel's beam to be a one-way narrow channel, and seven times the beam to be a two-way narrow channel. SIGTTO specifies a body of navigable water of width five times the vessel's beam to be a one-way narrow channel. So, for a characteristic 45 metre beam LNG carrier calling at the proposed Woodfibre LNG Terminal, this would imply a width of 180 meters for a one-way narrow channel and 315 metres for a two-way narrow channel.</p> <p>The US 5th Circuit court in its judgments has specified that under Rule 9 of the International Regulations for Preventing Collisions at Sea (COLREGS) and the U.S. Inland Navigation Rules, a "narrow channel" to be 1000 feet (305 metres) while other court judgments have considered any body of water with width less than 1060% the beam of the vessel, which would be 477 metres to be a narrow channel.</p> <p>SIGTTO's guidance principles also recommend turning circles to have a minimum diameter of twice the overall length of the largest LNG carrier (i.e. 600 m for Woodfibre LNG) and TERMPOL requires turning circle of 2.5 times the length, which equates to 750 m.</p> <p><i>LNG Carriers &amp; Howe Sound Shipping Channel / Route</i></p> <ul style="list-style-type: none"><li>• An LNG carrier needs a 180-metre (one way) wide channel for transit and 600 metre wide channel for turning with tugs.</li><li>• Howe Sound at its narrowest along the shipping route is 1440m or 4725feet.</li><li>• 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 2.7 km or 8858 feet.</li></ul> <p><i>Additional Information</i></p> <p>Subject to the recommendations of Transport Canada's TERMPOL Review Committee, which includes Transport Canada, Pacific Pilotage Authority, BC Coast Pilots and Canadian Coast Guard, Woodfibre LNG Limited 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 m 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 manoeuvres at very short notice.</p> <p>Woodfibre LNG will develop a Squamish Harbour Vessel Traffic Plan to identify strategies to minimize displacement of marine-based recreational activities. As a component 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.</p>	



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134(i)	February 12, 2015	Glenn Stainton - Squamish, British Columbia	A good project that deserves to proceed. Key points that need to be enhanced in their program is a establishment of base line data on the current state of noise and air borne pollutants in the Howe sound area. that way the cumulative effect of development from this project and others can be mointered.	Air Quality and Noise Baseline	<p>Thank you for your suggestions.</p> <p>As part of construction, Woodfibre LNG Limited has committed to conduct periodic monitoring to ensure that the noise from the Project does not exceed the projected levels (Section 5.4 Atmospheric Sound).</p> <p>In addition, Woodfibre LNG Limited will implement means for residents to call in to report any high noise activity.</p> <p>Section 5.2 Atmospheric Environment (Air Quality) includes the baseline air quality for the region. Air quality monitoring stations from Squamish, Langdale and West Vancouver are used to establish the baseline air quality.</p> <p>Woodfibre LNG Limited will support the BC Ministry of Environment if the decision to add additional air quality monitoring stations is made.</p>	
134(ii)	February 12, 2015	Glenn Stainton - Squamish, British Columbia	there is likely to be significant waste energy that can be reused from this plant and WLNG should study how to partner with other industries to help use this energy and support other development in the area.	Heat Capture Projects	At the request of certain members of the Squamish community, Woodfibre LNG has participated in very preliminary discussions surrounding CO <sub>2</sub> capturing. Woodfibre is happy to continue participation in such discussions and will continue to investigate the technical and economic feasibility of these alternatives.	
134(iii)	February 12, 2015	Glenn Stainton - Squamish, British Columbia	Last there needs to be a commitment by the WLNG to allow/support back country access to the non plant areas	Backcountry Access	Due to safety requirements, the Woodfibre property will be fenced and will not be open for public access; however, Woodfibre LNG Limited has committed to developing and implementing an Access Management Plan during construction and operation to address recreational backcountry opportunities while ensuring the safety and security of the public and of Woodfibre LNG Limited workers and facilities.	
135(i)	February 12, 2015	Susan Verver - Bowen Island, British Columbia	<p>I am writing to express my opposition to the proposed Woodfibre LNG Project in Howe Sound, primarily for two reasons</p> <p>One reason is that Howe Sound rivals other "Sounds" around the world for its beauty. It attracts both tourists and locals for their personal enjoyment, and to lose this pristine and important area for the sake of economic gain is shameful even to consider.</p>	Effects of the Project on the Tourism	<p>Thank you for the comments.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	

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135(ii)	February 12, 2015	Susan Verver - Bowen Island, British Columbia	<p>The second reason is very obvious; the threat to the environment; water pollution, risks to wildlife and other damage that cannot be undone.</p> <p>We have been boating in Howe Sound for decades and it is a wonder to us every time because of its beauty. Recently we have been able to play with pods of porpoises. Their return to the Sound is a blessing.</p> <p>As home-owners on Bowen and passionate boaters in the area, we are extremely concerned about the negative impact of the LNG Project. Please find an alternative location. Perhaps it will cost more in dollars to bring in infrastructure, but it will avoid a huge cost in irreparable damage to one of our most spectacular natural resources; untouched and pristine waters surrounded by mountains.</p> <p>Keep the tourists coming by protecting Howe Sound from commercial interests that can cause excessive damage. Protecting nature is the right thing to do.</p> <p>Thank you in advance for your consideration.</p>	Effects of the Project on the Environment	<p>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.</p> <p>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.</p> <p>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. 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.</p> <p>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.</p> <p>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.</p> <p>Please also refer to the Marine Mammals information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
136(i)	February 12, 2015	Personal Information Withheld - Bowen Island, British Columbia	<p>Good day,</p> <p>I am writing to voice my concern and objection to the Woodfibre LNG project. The reasons are many, most of which you have heard over and over again, and so I will not list them all. I would like to highlight my concern regarding the emergency response and containment capacity of the proponent. I read through sections 2.2.5.3.6, 2.2.6.2.12, 11.3.6, 11.3.8 and did not read anything that would adequately deal with any major emergency (mainly fire, explosion, and combustion).</p>	Accidents and Malfunctions	<p>Thank you for your comments.</p> <p>At Woodfibre LNG, safety is the number one priority.</p> <p>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.</p> <p>Please also refer to Section 2.2.5.2 Project Design Legislation and Standards. The Project must comply with the CSA Z276 Liquefied Natural Gas – Production, Storage and Handling standard. This program will include a detailed Emergency Response Plan including documented emergency response procedures, required equipment, training requirements, identification of trained personnel and plans for emergency drills and exercises.</p> <p>It is Woodfibre LNG Limited's intention to be self-sufficient for all possible emergency situations and it is not anticipated that Woodfibre LNG Limited would require First Responder emergency services. In addition, Woodfibre LNG Limited will continue discussions with local government and other emergency service providers in the LAA to ensure a robust communications plan in the unlikely event of an emergency related to the Woodfibre LNG Project.</p> <p>Please also refer the Public Safety information sheet that has been prepared as part of the Woodfibre LNG Limited Response to Public Comments.</p>	

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136(ii)	February 12, 2015	Personal Information Withheld - Bowen Island, British Columbia	Also, there was no mention of a seismic event and the impact it would have on operations. The proponent seems rather ignorant of the geographical and geological realities pertaining to this project. There will be a tremendous amount of contained energy sitting in tanks near major populated areas and no real way to manage a disaster. Access to the site is a major concern in this scenario.	Seismic Hazard	<p>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.</p> <p>The Project will be designed:</p> <ul style="list-style-type: none"> <li>• For a one in 2,475 year earthquake.</li> <li>• In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</li> <li>• 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</li> <li>• 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.</li> <li>• Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</li> <li>• Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</li> <li>• Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</li> <li>• 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.</li> <li>• 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.</li> <li>• Project components will be designed to accommodate a sea level rise of 0.5 metres.</li> </ul>	
136(iii)	February 12, 2015	Personal Information Withheld - Bowen Island, British Columbia	<p>Lastly, I am not entirely anti-resource since I work in the mining industry but I do have this nagging feeling that this is not the direction we should be heading in as a province. To put so much effort and capital in a fossil fuel industry at this point in time just does not feel right. We can do better. We can do better for our future generations and for the way we will be viewed in the times to come. So as a citizen of this province, and more broadly this planet, I hope our leaders can set course on a different future.</p> <p>Thanks for your time in reading this.</p>	LNG Industry	<p>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 Limited 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<sup>8</sup>.</p>	

<sup>8</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

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137	February 12, 2015	Peter Parsonage - Valleycliffe, Squamish, British Columbia	<p>I disagree most strongly with the once through cooling system as documented in the EAO submission.</p> <p>The proposal will cause significant damage to Howe Sound especially to the marine life. In addition, the plan in regards to the cooling system is not complete.</p> <p>The plan states that only chlorine will be added to the intake of water. Chlorine is used to kill organisms. It does nothing to protect the pipe from the corrosive effect of the sea water. The LNG plan does not cover additional chemicals that will need to be used in order to protect the pipe from corrosion. The plan is flawed and the omissions need to be addressed before being accepted.</p>	Seawater Cooling System	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p> <p>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). The assessment concluded that there were no Project-related significant adverse residual effects to the environment.</p> <p>The pipes used in the seawater cooling system are expected to be made of high density polyethylene (HDPE). HDPE is a plastic and will therefore corrosion resistant when exposed to seawater.</p> <p>Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2014. 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.</p>	
138(i)	February 12, 2015	Peter Parsonage - Valleycliffe, Squamish, British Columbia	<p>I am asking for a point of clarification with regard to the once-through cooling system. The plan as documented as is uses terms that are not clearly defined, therefore, confusing and open to interpretation.</p> <p>The discharge temperature measurement is to be made 10m from the point of discharge.</p> <p>As the proposal states that discharge will occur throughout a 100 metre pipe where is the point of discharge?</p> <p>Will the measurement apply to 10m from any point along the 100m pipe or will it be solely at the end of the pipe?</p> <p>Fluid dynamics dictate that the majority of the heat will already have been discharged by the time the final discharge location is reached. This effectively puts the distance at which the measurement is made to 110m, which is in clear violation of the law.</p>	Seawater Cooling System	<p>Thank you for your questions.</p> <p>The 10 m measurement is calculated perpendicular to each discharge port (i.e., 10 m along its entire length). The diffuser outlet pipe is 100 m long with multiple small outlet holes along its length to discharge the water and enhance the mixing and dispersion with the surrounding ambient water. The total volume of water that will be within the initial dilution zone is 125 m<sup>3</sup>.</p> <p>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.</p>	

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138(ii)	February 12, 2015	Peter Parsonage - Valleycliffe, Squamish, British Columbia	<p>In addition to the discharge location definition of a point to represent a 100m long pipe, there is no mention of who will perform the monitoring and how will it be done.</p> <p>Clearly, WLNG must not be allowed to perform self monitoring. I propose that the local 1st nations people be awarded the contract for the monitoring.</p> <p>There is also no mention of what the remedial consequences will be if the 1 degree C temperature difference is exceeded. It is normal practice to include that in any monitored situation.</p> <p>At what temperature difference must the cooling system be shut down?</p> <p>How long can they operate above 1C before they are required to take action?</p> <p>How often are they allowed to breach the limit before they have to find a different solution?</p> <p>What will happen if the exhaust pipe shortens and the 10m measurement point is no longer in compliance?</p>	Seawater Cooling System	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.	
139	February 13, 2015	Brian Hughes - Squamish, British Columbia	I am a 25 year resident of Squamish. I support this project and look forward to the economic rejuvenation and tax revenue this project will bring to the community.	LNG Project	Thank you, this comment is noted.	
140	February 13, 2015	Personal Information Withheld - Squamish, British Columbia	<p>In order to give meaningful feedback on the proposal the public comment period needs to be extended. How is anyone supposed to read 10,000 pages in such a short time period? 280+ pages a day?</p> <p>I ask to have the comment period to be extended.</p> <p>I am opposed to this project for many reason that I will elaborate on once I have read the entire document.</p>	Public Comment Period	<p>Thank you for your comment.</p> <p>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.</p>	
141	February 13, 2015	Denise McEwen - Gibsons, BC Sunshine Coast, British Columbia	These waterways include estuaries and are valuable in their own right! Do not haul dangerous goods through here! Please! Enough damage has already been done to last several life times! Let us use wind and solar power...or magnetic levitation even. It is time for a big change, that seems sure.	LNG Project	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p>	



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142	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	Since the BC government manages the LNG industry access to natural gas on behalf of British Columbians, and since the BC government has worked hard to build support through the creation of the "prosperity fund" what are the plans that the BC government has to ensure that the \$100 billion over the next 30 years will not be decimated by economic realities such as price drop of LNG. And, how will local operations such as Woodfibre LNG will be affected by low LNG prices, how will this endanger our local social, environmental, and economic realities of our community		<p>Thank you for your comment.</p> <p>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).</p>	
143	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	Since big numbers such as the "100 billion prosperity fund" are so hard to even understand. On a pound per pound basis, what percentage of each pound of natural gas exported by the proposed WLNG facility will stay in the local economy in the form of local taxes.	Economic Benefits of the Project	<p>Thank you for your comment.</p> <p>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):</p> <ul style="list-style-type: none"> <li>• \$83.7 MILLION: Estimated in tax revenue for all three levels of government during the construction phase of the Project.</li> <li>• \$86.5 MILLION: Estimated in tax revenue for all three levels of government per year of operation.</li> <li>• \$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</li> <li>• \$122.8 MILLION in GDP per year during operation.</li> </ul>	
144	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	Since big numbers such as the "100 billion prosperity fund" are so hard to even understand. On a pound per pound basis, what percentage of each pound of natural gas exported by the proposed WLNG facility will stay in the local economy in the form of each one of the following: direct employment, indirect economic activity, local taxes, provincial taxes and proponents profits.	Economic Benefits of the Project	<p>Thank you for your comment.</p> <p>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):</p> <p>CONSTRUCTION JOBS</p> <ul style="list-style-type: none"> <li>• Create 650+ jobs each year of construction. • Create an additional 1,080+ jobs (indirect* and induced** employment) during the construction phase of the Project.</li> </ul> <p>LONG-TERM OPERATION JOBS</p> <ul style="list-style-type: none"> <li>• Create 100+ local jobs during operation.</li> <li>• Create an additional 330+ local jobs (indirect* and induced**) during operation.</li> </ul> <p>*Indirect impacts arise from changes in activity for suppliers.</p> <p>**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.</p> <p>For more information, please refer to Section 2.6 Project Benefits of the Application. Additional benefits from the Project are described in greater detail in Section 6.2 Labour Market, Section 6.3 Sustainable Economy and Section 7.2 Infrastructure and Community Services.</p>	

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145	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	What are the overall expected methane emissions at the pipeline, compresor station, storage facilities, and LNG tankers and what are the acceptable methane emissions at each one of this points	Pipeline and Compressor Station Methane Emissions	<p>Woodfibre LNG notes that the pipeline and compressor station are 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: <a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p> <p>Please refer to Section 5.3 Greenhouse Gas Management of the Application. This information is specifically included in Section 5.3.3.2.2. Potential Effects of Project Greenhouse Gas Emissions during All Phases. During operations, the expected annual emissions of methane are 1.6 kt in direct emissions.</p>	
146	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	What are the continued methane monitoring systems that the proponents have to monitor leaks at the pipeline, compresor station, storage facilities and how is this reported to the public	Pipeline and Compressor Station Methane Emissions	<p>Woodfibre LNG notes that the pipeline and compressor station are 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: <a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p> <p>In accordance with the relevant Canadian Standards, the facilities' design must incorporate a robust fire and gas detection system with audible and visual alarms linked to the main control room and emergency shutdown system.</p> <p>Prior to receiving a Leave to Operate from the Oil and Gas Commission, Woodfibre LNG must submit a Safety and Loss Management Plan which incorporates a fugitive emissions management plan. The fugitive emissions management plan should include monitoring programs, operating procedures and performance objectives for controlling fugitive emissions.</p> <p>Under the Greenhouse Gas Industrial Reporting and Control Act, Woodfibre LNG is required to measure and report emissions. A copy of these reports will be posted on Woodfibre LNG's website.</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
147	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	Given that the west coast and Squamish is an earthquake prone area what are the systems in place to ensure that a seismic event will not produce a significant leak that will cause a potentially explosive high concentration vapor cloud on our community.	Seismic Hazard	<p>Thank you for the question.</p> <p>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.</p> <p>The Project will be designed:</p> <ul style="list-style-type: none"><li>• For a one in 2,475 year earthquake.</li><li>• In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</li><li>• 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</li><li>• 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.</li><li>• Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</li><li>• Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</li><li>• Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</li><li>• 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.</li><li>• 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.</li><li>• Project components will be designed to accommodate a sea level rise of 0.5 metres.</li></ul>	

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148	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	What will be the expected evacuation area if a major disaster would occur at the WLNG storage facility. If possible please respond to this question on a map.	Evacuation	<p>Thank you for the comment. At Woodfibre LNG, safety is the number one priority.</p> <p>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. Of all the accident and malfunction events considered, only four have the potential to interact with members of the public. The effects of the remaining events are contained inside the proposed facility boundary, which is inaccessible to the public. The four events that pose potential risk to the public include:</p> <ul style="list-style-type: none"><li>• Flammable releases from the loading arm</li><li>• Flammable releases from the floating storage and offloading unit</li><li>• A collision between an LNG carrier and a passenger ferry</li><li>• A collision between an LNG carrier and a marine recreational vessel</li></ul> <p>For each event, a credible worst-case scenario was determined and assessed for potential effects to the public. The results of these credible worst case scenarios are described in Section 11.0 (including Appendix 11.1) and the supplemental information provided to the EAO on April 29, 2015.</p> <p>Evacuation zones were not determined as part of the environmental assessment because there are no residential communities within the range of the area that would be affected in the event of a credible worst case scenario. In particular, the area of effect does not extend onto land for either of the LNG carrier scenarios. For the scenario involving the a flammable release from the floating storage and offloading unit, results of the quantitative risk assessment show that the effects of this scenario have the potential to extend approximately 410 m past the Project boundary. It is worth noting, however, that the risk of fatality to a member of the public present within this potential zone of effect 24- hours a day, 7 days a week, and 52 weeks a year, is approximately one in every 1.75 million years.</p> <p>Please also refer to the Public Safety information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
149	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	What valuation studies had been done or will be done to assess the cost of bringing an inherently risky and dirty fossil fuel technology to a community that has been successfully branding itself to the world as the recreation capital of Canada.	Effects of the Project on Tourism	<p>Thank you for the comment.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>In addition, Woodfibre LNG Limited has offered to undertake an Economic Impact Study in conjunction with the District of Squamish (similar to the one that was conducted for Garibaldi at Squamish). If the District of Squamish accepts Woodfibre LNG Limited's offer, it is expected that the two parties would agree on the scope of the study and the company engaged to conduct the work. Woodfibre LNG Limited would fund the agreed upon study.</p>	
150	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	Will LNG tanker traffic be restricted during weekends and other holidays when most recreational boaters and kayakers enjoy the waters of the Howe Sound.	LNG Carrier Schedule	<p>Thank you for the comment.</p> <p>Squamish is Canada's outdoor recreation capital and Woodfibre LNG intends to help keep it that way.</p> <p>LNG carriers will travel at very low speeds through Howe Sound – about eight to 10 knots – ensuring they don't create a large wake and that they can safely share the waters with recreational boaters.</p> <p>The LNG vessels will come in and out of Howe Sound on established shipping lanes about once every 10 days – fewer than already come and go from Squamish Terminals. Woodfibre will also post a schedule of what days the carriers are expected, so boaters can know exactly what to expect.</p> <p>Woodfibre LNG Limited 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 m 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 manoeuvres at very short notice. Each LNG carrier will also be guided to Woodfibre by two BC Coast Pilots, who are experts with Howe Sound navigation and who know the waters the best.</p> <p>Please also refer to the Marine Recreation and Marine Transport information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	



Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
151	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	How does chlorinating and changing the temperature of 20 Brennam park swimming pools per hour and putting them back in the Howe Sound. Will affect microscopic and non-microscopic life in the long run. What studies had been done in regards to this.	Seawater Cooling System	<p>Thank you for the comment.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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 Limited response to public comments.</p>	
152	February 14, 2015	Rafael Maldonado - Squamish, British Columbia	Since BC government is committed to be a world leader in environmental regulation. Can the government request to the proponent to use a closed loop cooling system instead of a once-through cooling system.	Seawater Cooling System	This comment is noted	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 <a href="#">[Link]</a> .
153	February 14, 2015	Personal Information Withheld - North Vancouver, British Columbia	From an environmental stand point, this project is riddled with potential catastrophe. Howe sound is just now responding positively to recent environmental efforts. The value that this ecosystem presents to tourism, fishing, recreational sports and otherwise its invaluable. I am a 21 year old environmental science student. My future depends on the vitality of this ecosystem and many others just like it. Please reconsider	Effects of the Project on the Environment	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p> <p>Woodfibre LNG Limited intends to perform additional remediation and restoration in the Project area. Plans for additional remediation include the</p>	

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					<p>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).</p> <p>Woodfibre LNG is committed to ongoing environmental monitoring and compliance activities throughout the life of the Project which will create opportunities for applied environmental management.</p> <p>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.</p>	
154(i)	February 14, 2015	Mike Quesnel - Squamish, British Columbia	I have many concerns about the proposed Woodfibre LNG project and its affects upon the citizens of BC. I was extremely disappointed when the liberal govt cut the LNG tax rate from 7% to 3.5% and also dropped the LNG industries corporate tax rate from 11% to 8% and on top of all this the gas royalty tax is only .5% Once the LNG leaves the terminal it is no longer under BC and Canadian tax laws and our opportunity to collect tax upon our natural resource is gone. Very little financial benefit and no resource benefit to our citizens.	Economic Benefits of the Project	<p>Thank you for the comments.</p> <p>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):</p> <ul style="list-style-type: none"> <li>• \$83.7 MILLION: Estimated in tax revenue for all three levels of government during the construction phase of the Project.</li> <li>• \$86.5 MILLION: Estimated in tax revenue for all three levels of government per year of operation.</li> <li>• \$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</li> <li>• \$122.8 MILLION in GDP per year during operation.</li> </ul> <p>Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
154(ii)	February 14, 2015	Mike Quesnel - Squamish, British Columbia	The Woodfibre LNG plant will be using 140 MW of power to liquefy the NG compress and place on the Tankers. The Liberal govt has placed an \$83/MW Hydro rate for the LNG industry. At \$83 a MW it is well below production cost of most methods used by BChydro our crown corporation. In my opinion providing these low hydro rates is just another form of subsidization used to prop up an industry that is already being heavily subsidized by cut tax rates. With infrastructure aging and failing we need to be collecting appropriate taxes and finances at sustainable rates to maintain the systems we have in place, not reducing rates and take to industries and expanding infrastructure we cannot afford.	BC Hydro Rates	<p>The BC Government announced the combined energy and demand charge for LNG facilities in 2014 will be \$83.02 per megawatt hour (MWh), before applicable taxes. This is over 50% more than the average rate paid in 2014 by industrial customers. LNG customers will also be required to contribute the full cost of connecting to the BC Hydro system, as well as transmission system upgrades required to serve their facilities.</p>	

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154(iii)	February 14, 2015	Mike Quesnel - Squamish, British Columbia	With so many global LNG operations coming into the market at a time when the Global oil industry is over saturated and price per barrel is plummeting because of over production why are we investing so heavily in a sector which is not beneficial? Demand for oil and gas is only going to decrease as technology advances and other forms of alternative energy's become more affordable. As university's such as UBC and large financially wealthy family's such as the Rockefeller's pull out of investing into the carbon fuel industry and choose to invest into greener energy production it makes no sense for our province to be doing the opposite. I believe it would be better for our province to begin making this shift as well, joining the leaders of the world investing into sources of energy free of carbon.	LNG Industry	<p>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%<sup>9</sup>.</p> <p>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<sup>10</sup>. China's energy demand increases by 5% annually<sup>11</sup>. 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)<sup>12</sup>.</p>	
154(iv)	February 14, 2015	Mike Quesnel - Squamish, British Columbia	I feel the negative impacts upon the environment through the use of Hydraulic Fracturing drilling of the NG from the ground far out weigh any potential financial gain we may attain from LNG industry establishing itself in this province.	Hydraulic Fracturing	<p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p>	

<sup>9</sup> 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](http://www.bp.com/content/dam/bp/pdf/statistical-review/statistical_review_of_world_energy_2013.pdf)>

<sup>10</sup> ICIS. China Natural Gas Annual Report <<http://www.icis.com/energy/channel-info-about/china-natural-gas-annual-report/>>

<sup>11</sup> 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](http://public.woodmac.com/content/portal/energy/highlights/wk3_Nov_13/LNG%20Service%20and%20Tool.pdf)>

<sup>12</sup> National Development and Reform Commission. 2014. Social Development and National Economics Statistics Bulletin 2011 – 2013.

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154(v)	February 14, 2015	Mike Quesnel - Squamish, British Columbia	<p>I am extremely concerned with addition of Carbon fuels being burned and released into the atmosphere, causing the acidification of the oceans and the genocide of the life within them. We cannot afford to add more carbon fuels, if we want to sustain life on this planet. We need to change.</p> <p>In the end we all only have one home and it is very obvious that our actions to continue the growth of the economy using the methods we have been choosing through carbon fuel development have been having extremely devastating impacts upon all life forms of earth. We do not have another planet that we can pack up and move to and Jehovah is not coming to save us. So maybe we can start seeing some leadership happening with our global governments and through the help of citizens and environmental assessments we can direct these leaders to actions that protect our only home and help make life sustainable choices investing in the future for the generations to come. I strongly oppose the Woodfibre LNG project.</p>	Climate Change	<p>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 Limited 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<sup>13</sup>.</p> <p>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.</p>	
155	February 14, 2015	Vel Anderson - Gibsons, British Columbia	<p>1. Two 2010 internal audits found the Canadian Coast Guard's capacity to monitor and react to an oil spills was outdated, disorganized and needing an overhaul.</p> <p>2. The 2012 report found about 83 per cent of spill-response equipment across Canada is ready for use but most of it is outdated.</p> <p>3. March 2012 draft report prepared for the Department of Fisheries and Oceans, which oversees the coast guard, found recommendations contained in the reports to improve its capacity have not been implemented.</p> <p>This information is disheartening and frightening to say the least. Now you want the citizens to sit back and welcome LNG tankers, capable of wicked destruction, into our waters. This is madness!!!</p> <p>What is the current condition and overall effectiveness of Canadian Coast Guard's response time and response equipment in regards to statements 1., 2., 3., above?</p> <p>Please supply the reports that prove that the Canadian Coast Guard is actually capable of handling a Liquid Natural Gas spill and or disaster, both at dockside or on water.</p>	Canadian Coast Guard	<p>Thank you for the comment. Woodfibre LNG cannot speak on behalf of the government.</p> <p>Information relating to the Canadian Coast Guard and their capabilities to handle LNG spills and other emergencies can be obtained through their website at <a href="http://www.ccg-gcc.gc.ca">www.ccg-gcc.gc.ca</a>.</p>	<p>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 <a href="#">[Link]</a>.</p>

<sup>13</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

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156	February 15, 2015	Personal Information Withheld - Gabriola Island, British Columbia	The proponents Application is too large to digest. It is a deliberate attempt to drown us in detail, to obscure the essential issues with masses of technical data, designed to obscure not clarify. I am more concerned with the route of the supply pipeline and wonder if you can tell me where this is proposed to transit. Thank you for your diligence and the opportunity to comment.	Pipeline	Thank you for your comment. Woodfibre LNG notes that the pipeline and compressor station are 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: <a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a>	
157(i)	February 15, 2015	Personal Information Withheld - Howe Sound, British Columbia	<p>These comments are in regards to the public comment period and process.</p> <ul style="list-style-type: none"> <li>We acknowledge BCEAO response to feedback on the first open houses held on the draft application. The area being assessed under this project includes the approximately 45 kilometre marine transit route through Howe Sound, from the entrance at Passage Island to Squamish. We believe Woodfibre LNG consultation on this project should have included West Vancouver, Bowen Island and Sunshine Coast prior to the submission of this application. The Howe Sound Airshed is not limited to Squamish, and the marine shipping route affects all communities along the route in Howe Sound. The open houses held in West Vancouver and Bowen Island were the first opportunities for people south of Furry Creek to attend an open forum to learn about the project. Even so, the notice period was very short which limited the number of people within the total assessment area to prepare and be available to attend. This Project, we believe deserves a very robust consultation with the public in the Howe Sound region.</li> </ul>	Public Consultation	<p>Woodfibre LNG Limited takes its responsibility to consult with the public seriously.</p> <p>Since planning on the Woodfibre LNG Project began in 2013, Woodfibre LNG has undertaken public consultation in the form of:</p> <ul style="list-style-type: none"> <li>7 Open Houses in: Squamish; Bowen Island; District of West Vancouver; Whistler; Britannia Beach and Furry Creek, attended by more than 870 people</li> <li>1 Community Roundtable on Gambier Island, attended by 53 people</li> <li>10 Small Group Meetings, involving more than 200 people</li> <li>2 Telephone Town Halls with 765 participants</li> <li>310+ Stakeholder Meetings</li> <li>5 Newsletters</li> <li>Askwoodfibrelng.ca website, allowing people direct access to project experts</li> <li>Regularly monitored Project Information Line</li> <li>Regularly monitored Project Email Address, <a href="mailto:info@woodfibrelng.ca">info@woodfibrelng.ca</a></li> <li>YouTube Channel</li> </ul> <p>In addition, Woodfibre LNG has opened a Community Office in Squamish to respond to questions.</p> <p>A public consultation report will be filed with the EAO in accordance with the environmental assessment (EA) process.</p> <p>In response to public consultation, Woodfibre LNG has made meaningful changes to the Project. For example, in response to concerns about the possibility that the LNG facility would run on a gas turbine, Woodfibre LNG committed to powering the facility plant using electricity from BC Hydro. This decision will reduce greenhouse gas emissions by about 80 per cent, and will help make Woodfibre one of the cleanest LNG plants in the world.</p> <p>Public participation in the EA process helps to ensure that community values and public goals for community development are considered in project planning and decision-making.</p>	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 <a href="#">[Link]</a> .



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157(ii)	February 15, 2015	Personal Information Withheld - Howe Sound, British Columbia	<p>These are my comments from attending all three: BCEAO staff were very visible, friendly and present at the entrance which was an improvement over the first open house. I appreciated the opportunity to speak with a number of the Environmental Assessment officers including those at the senior levels.</p> <ul style="list-style-type: none"><li>• The BCEAO Woodfibre LNG project manager present at the first open house was now attending as an employee of Woodfibre LNG which seems to be a conflict since the BCEAO is intended to be a neutral agency.</li><li>• I left the open houses with many answers still outstanding which I will note in further comments.</li><li>• All Woodfibre LNG representatives wore the same style name tag, first name only and no identification of which organization they represented or their qualifications. It was not transparent that some of these "Woodfibre LNG" representatives were hired PR consultants, and potential suppliers to the project. The room was populated with many people appearing to be Woodfibre LNG, but not knowledgeable in all aspects of the project.</li><li>• Woodfibre LNG representatives I spoke with were not able to reference information we were speaking about in the EA documents binders. In most cases I was left to look for the information.</li><li>• The open houses were presented more as a public relations event by Woodfibre LNG than an opportunity to learn more detailed technical information. Information provided was a summary or overview in most cases. It would have been more informative to have representatives from regulatory bodies such as BC Oil and Gas Commission and Transport Canada who would be able to answer questions on what safeguards or criteria needs to be met in order for the project to be safe. It would have been more helpful to have the engineers who are working on the technical design of the project. For example, it was helpful and affirming to speak directly with the engineer from Keystone Environmental who worked directly on the cleanup of the site contamination.</li><li>• Hemmera Consultants contracted by Woodfbire LNG present are admittedly not experts on vessels and marine safety hazards, but on more than one occasion two of the representatives became defensive and patronizing with me on this topic and I felt this was inappropriate.</li></ul>	Public Consultation	<p>Woodfibre LNG has undertaken public consultation in the form of more than 300 community meetings, two telephone town halls, three rounds of formal public consultations, and has opened a Community Office in Squamish to respond to questions. Woodfibre LNG also regularly engages the public through its web site (woodfibrelng.ca), email, and Facebook page, and recently launched a question and answer website askwoodfibrelg.ca, and a Woodfibre LNG YouTube channel.</p> <p>A public consultation report will be filed with the EAO in accordance with the environmental assessment process.</p> <p>In response to public consultation, Woodfibre LNG has made meaningful changes to the Project. For example, in response to concerns about the possibility that the LNG facility would run on a gas turbine, Woodfibre LNG committed to powering the facility plant using electricity from BC Hydro. This decision will reduce greenhouse gas emissions by about 80 per cent, and will help make Woodfibre one of the cleanest LNG plants in the world.</p> <p>The Application assesses the shipping component of the Project in Section 7.3 Marine Transport as well as Section 11.0 Accidents and Malfunctions. In addition, shipping as an activity is considered in the effects assessment for the valued components (VCs).</p>	<p>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 <a href="#">[Link]</a>.</p>

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			<ul style="list-style-type: none"> <li>The story boards and information provided were simplified to such an extent it felt misleading. There were no realistic images or visuals of this industrial project or LNG tankers. There were no realistic images of flaring or even the flare tower. The drawing of the cooling system was simplified for storytelling and the consultant that created the drawing based on the interpretation of the proposed design said herself "nobody wants to see the real picture". Canada does not have any operational LNG export facilities, this could possibly be the first LNG Processing facility operating on the West Coast of Canada. - This process is rushed and given the design of the FSO is unique and the hazardous nature of processing natural gas, more time should be allowed for comment and assessment.</li> </ul>			
158(i)	February 15, 2015	Judith Holm - Squamish, British Columbia	<ol style="list-style-type: none"> <li>What disaster response plans are in place or in process, for both the proposed Woodfibre LNG plant and its tanker traffic?</li> </ol>	Emergency Response Plan	<p>Thank you for your questions.</p> <p>Prior to operation of the Project, the Liquefied Natural Gas Facility Regulation requires that Woodfibre LNG Limited prepare a Safety Loss and Management Program that complies with CSA Z276. This program includes a detailed Emergency Response Plan that includes documented emergency response plans, required equipment, training requirements, identification of trained personnel and plans for emergency drills and exercises.</p> <p>It is Woodfibre LNG Limited's intention to be self-sufficient for all possible emergency situations and it is not anticipated that Woodfibre LNG Limited would require First Responder emergency services. In addition, Woodfibre LNG Limited will continue discussions with local government and other emergency service providers in the LAA to ensure a robust communications plan in the unlikely event of an emergency related to the Woodfibre LNG Project.</p> <p>If a ship is at dock at the time of a seismic event and the movement between the 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.</p> <p>Woodfibre LNG will also complete a voluntary Transport Canada Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) for the Project. The review will include a comprehensive risk assessment to ensure safety of vessel transits from terminal to open ocean; the development of recommendations to improve safety and minimize risk; and, the development of detailed safety procedures and emergency response plans.</p> <p>Please also refer to the Public Safety and Marine Transport information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
158(ii)	February 15, 2015	Judith Holm - Squamish, British Columbia	<ol style="list-style-type: none"> <li>Has Woodfibre LNG chosen to meet the required standards to obtain insurance against an environmental disaster? Otherwise, BC taxpayers would be fully ``on the hook`` in the event of one (or more).</li> </ol>	Insurance	Both Woodfibre LNG Limited and the LNG carriers will carry appropriate levels of insurance, including coverage for any potential spills or discharge of pollutants, both marine and on-land.	

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158(iii)	February 15, 2015	Judith Holm - Squamish, British Columbia	3. Despite its safety concerns over US LNG shipments in eastern Canadian waters, the Canadian government is supportive of LNG shipments in ecologically sensitive areas of BC, such as Howe Sound, which has some heavily populated areas and a busy Sea to Sky highway along its shores, then through the Gulf Islands and past Victoria. Will the BC Environmental Assessment Office be noting this double standard?	Marine Transport Safety	While it's true that the Government of Canada has taken issue with LNG carriers travelling through a small section of the Atlantic coast, it is due to very specific conditions in the waters of Passamaquoddy Bay, notably the world famous tides of the Bay of Fundy. These conditions do not exist in Howe Sound.	
158(iv)	February 15, 2015	Judith Holm - Squamish, British Columbia	4. Would it be legal for the Premier to override any of the BC environmental assessment requirements?	Environmental Assessment Process	Thank you for the comment. Decision making authority under the <i>Environmental Assessment Act</i> rests mainly with the Minister of Environment and the EAO's Executive Director.	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 <a href="#">[Link]</a> .
158(v)	February 15, 2015	Judith Holm - Squamish, British Columbia	5. Has Woodfibre LNG provided your office with sufficient proof that its plant will in fact be able to meet or exceed BC requirements regarding the water intake from Howe Sound and discharge of warm chlorinated water?	Seawater Cooling System	The intake used for the seawater cooling system will be designed to meet DFO BMPs for approach velocity and screen size, as outlined in <i>Guidelines for Minimizing Entrainment and Impingement of Aquatic Organisms at Marine Intakes in British Columbia</i> . 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 residual levels of chlorine at the discharge ports are very low 0.02mg/L – below a level considered lethal to marine life. The diffuser system design means that seawater temperature at a distance of 10 m from each diffuser port will be less than one degree centigrade difference from the ambient seawater temperature. Furthermore a maximum temperature of 21°C is considered non-lethal to fish and mammals. Residual chlorine in discharge water will be continuously monitored and within the minimum regulatory requirement of 0.02 PPM. 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 information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.	
158(vi)	February 15, 2015	Judith Holm - Squamish, British Columbia	6. I am concerned that during 25 years the system for water intake, use and discharge will kill enough small organisms at the bottom of the food chain to significantly reduce the organisms higher up the food chain in Howe Sound (fish, marine mammals etc.) whose survival depends upon what the LNG plant will kill. Would you require the monitoring of the discharge water for percentage of dead organisms/organic material? 7. Will Woodfibre LNG be required to monitor the acidity of the ocean near the outflow?	Monitoring Requirements	Water discharges from the seawater cooling system will be permitted under section 14 of the <i>Environmental Management Act</i> . The discharge permit will include monitoring and reporting requirements. In addition, Woodfibre LNG will conduct effects monitoring that will include periodic studies of water and sediment quality, as well as benthic and pelagic communities. The studies will be conducted at the Project area (receiving environment) and reference area.	
158(vii)	February 15, 2015	Judith Holm - Squamish, British Columbia	8. What proof does Woodfibre LNG supply that it will be capable of meeting or exceeding the Greenhouse Gas Emission standards?	Greenhouse Gas Emission Standards	The Project is using electric power, which is anticipated to result in an 80% decrease in greenhouse gas (GHG) emissions and 90% reduction in other air pollutants (such as nitrogen oxides – smog) compared to gas turbines. Section 5.3 Greenhouse Gas Management of the Application includes an	

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					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.	
158(viii)	February 15, 2015	Judith Holm - Squamish, British Columbia	9. The communities around Howe Sound and their municipal governments are increasingly showing leadership to avoid repeating environment damage caused by past industries and to instead encourage industries and businesses compatible with a sustainable recovery of Howe Sound. The beauty of our physical environment and the healthy, outdoor lifestyle it enables is why many are attracted to Squamish. In stark contrast there is mounting scientific evidence that the overall climatic impact of LNG rivals the impact of coal.	LNG Industry	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 Limited 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 <sup>14</sup> .	
158(ix)	February 15, 2015	Judith Holm - Squamish, British Columbia	10. The larger concerns around climate change should be relevant to the Woodfibre LNG environmental assessment application. Woodfibre LNG would enable more fracking in BC, with fracking's huge emissions of methane, contamination of fresh water, destruction of habitat, exemption from carbon tax(!!) and more. I am concerned lest the BC Environmental Assessment Officers focus only on the detailed requirements without some consideration for the more complex larger picture. Your role is crucial.	Hydraulic Fracturing	<p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>The scope of the environmental assessment for the Woodfibre LNG Project is as defined in the section 11 Order issued by the EAO. That scope does not include the upstream activities.</p>	

<sup>14</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

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159	February 15, 2015	Personal Information Withheld - Howe Sound, British Columbia	There have been a series of small earthquakes over the last few days in the Vancouver region. This LNG facility will be a bad idea in the event of a larger earthquake. What measures are being taken in an emergency earthquake? What about massive tankers and earthquakes?	Seismic Hazard	<p>Thank you for the comment.</p> <p>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.</p> <p>The Project will be designed:</p> <ul style="list-style-type: none"><li>• For a one in 2,475 year earthquake.</li><li>• In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</li><li>• 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</li><li>• 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.</li><li>• Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</li><li>• Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</li><li>• Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</li><li>• 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.</li><li>• 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.</li><li>• Project components will be designed to accommodate a sea level rise of 0.5 metres.</li></ul>	



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160	February 16, 2015	Vel Anderson - Gibsons, British Columbia	<p>Bilge water, in ships, is not exactly water but a mixture of variety of hazardous and non hazardous substances. It's a mixture of fresh water, sea water, oil, sludge, lubricants, chemicals, various inorganic salts, and metals (e.g., arsenic, copper, chromium, lead, and mercury) and also has a foul odour. Often referred to as "oily waste".</p> <p>Since the toxins prevalent in bilge water pose a significant threat to fish, wildlife, and humans even in small concentrations, untreated bilge water is prohibited from being discharged into the sea without treatment</p> <p>MARPOL regulations, regarding oil and oily residue discharges are often ignored. The mess is dumped into the sea which degrades the sea environment.</p> <p>Does BC and Canada recognize MARPOL Regulations as a part of its laws?</p> <p>If our governments do not recognize4 MARPOL regulations, what are the environmental laws pertaining to bilge water?</p> <p>What action is taken by those caught violating the environmental law?</p> <p>What ports around our coastal area have facilities where old bilge water can be disposed of properly, and will accept these huge LNG vessels?</p>	Bilge Water	<p>Thank you for your questions.</p> <p>LNG carriers must comply with the <i>Canada Shipping Act 2011</i>, Ballast Water Control and Management Regulations.</p> <p>In addition, all LNG carriers will comply with the International Maritime Organization (IMO) Regulations, MARPOL Annex IV (Prevention of Pollution by Sewage from Ships) and Annex V (Prevention of Pollution by Garbage from Ships). The LNG carriers will carry an International Sewage Pollution Prevention Certificate and Garbage Management Plan that prohibit the discharge of any wastewater or garbage within ports or offshore terminals.</p> <p>Further, as the LNG carriers proceeding to Squamish will initially enter US waters, they must comply with the US Environmental Protection Agency requirements for the National Pollutant Discharge Elimination System Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels.</p>	
161(i)	February 16, 2015	Personal Information Withheld - Squamish, British Columbia	<p>There is nowhere near enough unbiased info for the public to make an informed decision about WLNG. Based on the info that I have been able to find, here are the pros and cons:</p> <p>Pro</p> <ul style="list-style-type: none"><li>• A few jobs will be created in Squamish</li><li>• We might see provincial or municipal tax revenue from the project (if of course WLNG actually makes a profit; given the volatility of gas prices, there is no guarantee of that)</li></ul>	Economic Benefits of the Project	<p>Thank you for your comments.</p> <p>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):</p> <p>CONSTRUCTION JOBS</p> <ul style="list-style-type: none"><li>• Create 650+ jobs each year of construction. • Create an additional 1,080+ jobs (indirect* and induced** employment) during the construction phase of the Project.</li></ul> <p>LONG-TERM OPERATION JOBS</p> <ul style="list-style-type: none"><li>• Create 100+ local jobs during operation.</li><li>• Create an additional 330+ local jobs (indirect* and induced**) during operation.</li></ul> <p>*Indirect impacts arise from changes in activity for suppliers.</p> <p>**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.</p> <p>For more information, please refer to Section 2.6 Project Benefits of the Application. Additional benefits from the Project are described in greater detail in Section 6.2 Labour Market, Section 6.3 Sustainable Economy and Section 7.2 Infrastructure and Community Services.</p> <p>Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments for a discussion on the anticipated government revenues (i.e., taxes) that will be generated by the Project.</p>	

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161(ii)	February 16, 2015	Personal Information Withheld - Squamish, British Columbia	<p>Con</p> <ul style="list-style-type: none"><li>• We WILL see some environmental damage locally from the plant, tankers, and compressor station (the extent has NOT been made clear)</li><li>• There IS a risk - admittedly small - of a catastrophic explosion or spill from the plant, tankers or compressor station</li></ul>	Effects of the Project on the Environment Safety Marine Transport Greenhouse Gas Emissions	<p>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.</p> <p>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 standards.</p> <p>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.</p> <p>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. 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.</p> <p>Please also refer to Public Safety and Marine Transport Information Sheet that have been prepared as part of the Woodfibre LNG Limited response to public comments.</p> <p>Woodfibre LNG notes that the compressor station is a part of 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:</p> <p><a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p>	

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161(iii)	February 16, 2015	Personal Information Withheld - Squamish, British Columbia	<ul style="list-style-type: none"><li>The tankers WILL interfere with recreational actives in Howe sound</li></ul>	Effects of the Project on Marine Recreation	<p>According to the Canadian Coast Guard, there were a total of 12,909 large vessel movements in Howe Sound in 2013, all enabled by existing navigational aids along the route. The Woodfibre LNG Project will bring three to four LNG carriers to the site each month.</p> <p>Each transit of an LNG carrier, between the entrance to Howe Sound and the Woodfibre LNG terminal, is anticipated to last 2.5 hours in duration. The loading of each LNG carrier is anticipated to be complete within 24 hours.</p> <p>Subject to the recommendations of TERMPOL Woodfibre LNG Limited 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 m 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 manoeuvres at very short notice..</p> <p>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.</p> <p>Woodfibre LNG Limited has committed to further consultation with recreation stakeholder groups in Howe Sound to identify concerns and, where practical, additional mitigation measures to reduce effects.</p> <p>Please also refer to the Marine Recreation information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
161(iv)	February 16, 2015	Personal Information Withheld - Squamish, British Columbia	<ul style="list-style-type: none"><li>It deepens the global dependence on fossil fuels - there is little evidence that natural gas (and especially shale gas) will reduce greenhouse gas production and smooth the transition to zero-carbon, renewable fuels</li></ul> <p>Given that the cons are assured and the pros are possibilities, I don't see any reason to support the project and plenty of reason to oppose it.</p>	Greenhouse Gases	<p>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 Limited 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<sup>15</sup>.</p> <p>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.</p>	

<sup>15</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

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162(i)	February 16, 2015	Fred Bain - Lions Bay, British Columbia	<p>The concerns I have are as follows: deep sea vessels often carry sea water as ballast when not carrying their cargo.</p> <p>It is reasonable to assume that the sea water taken on would be from foreign waters that may contain organisms that may be harmful or fatal to the Howe Sound ecosystem or at least to some of the local organisms; Howe Sound has benefited from years of hard work of restoring the marine health.</p>	Ballast Water	<p>Thank you for your comments.</p> <p>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 must be discharged at least 200 nautical miles from shore where water depth is at least 2000 m in order to avoid aquatic invasive species from foreign waters entering Canadian jurisdiction.</p> <p>In addition, all LNG carriers will comply with the International Maritime Organization (IMO) Regulations, MARPOL Annex IV (Prevention of Pollution by Sewage from Ships) and Annex V (Prevention of Pollution by Garbage from Ships). The LNG carriers will carry an International Sewage Pollution Prevention Certificate and Garbage Management Plan that prohibit the discharge of any wastewater or garbage within ports or offshore terminals. Further, as the LNG carriers proceeding to Squamish will initially enter US waters, they must comply with the US Environmental Protection Agency requirements for the National Pollutant Discharge Elimination System Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels.</p>	
162(ii)	February 16, 2015	Fred Bain - Lions Bay, British Columbia	<p>I do not think the risk is worth the money coming to the province through the shipping of LNG; Erosion of shorelines due to large vessels travelling through with, I understand, as many as three tugs; there hasn't been enough credible studying into the wave impacts of the coastal communities;</p>	Effects of the Wake on the Shoreline	<p>As part of the Application, a Vessel Wake Assessment was carried out by Moffatt &amp; Nichol. Moffatt &amp; 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.</p> <p>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.</p> <p>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 &amp; Nichol, the potential wake effects were determined to be negligible (i.e., they would not have a measurable change).</p> <p>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.</p>	
162(iii)	February 16, 2015	Fred Bain - Lions Bay, British Columbia	<p>air quality impact having such large ships in a narrow sound; (what fuel would the tankers burn?)</p>	Effects of Shipping on Air Quality	<p>Natural gas will be the primary fuel for LNG carriers in Howe Sound.</p> <p>Section 5.2 Atmospheric Environment (Air Quality) of the Application includes the emission of LNG carriers in the assessment of air quality. Changes to air quality as a result of Project-related effects, when coupled with existing (background) conditions, are not expected to exceed ambient air quality criteria offsite for indicator compounds.</p> <p>Please also refer to the Air Quality Information Sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	

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162(iv)	February 16, 2015	Fred Bain - Lions Bay, British Columbia	<p>Impact on other water traffic in a limited space; (there has been talk of exclusion zones when the ships are travelling in Howe Sound if so, how do private boaters know where and when they are excluded?</p> <p>would everybody need to monitor Vancouver Traffic, for example, to find if boating in the sound is safe?</p> <p>would Vancouver Traffic even monitor the ships before they leave Howe Sound?); Would there need to be upgrades to our systems to ensure marine safety?</p> <p>This sounds like a lot of money to be spent for the benefit of a foreign billionaire.</p>	Exclusion Zone	<p>There is currently no regulation in Canada which stipulates an exclusion zone; however, Woodfibre LNG will complete a voluntary Transport Canada Technical Review Process of Marine Terminal Systems and Transshipment Sites (TERMPOL) for the Project. The review will include a comprehensive risk assessment to ensure safety of vessel transits from terminal to open ocean; the development of recommendations to improve safety and minimize risk; and, the development of detailed safety procedures and emergency response plans.</p> <p>Subject to the recommendations of TERMPOL Woodfibre LNG Limited 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 m 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 manoeuvres at very short notice.</p> <p>LNG carriers will request clearance from the Canadian Coast Guard Marine Communications and Traffic Services (MCTS) prior to entering, moving within, and departing Howe Sound. MCTS will communicate and monitor movements along the entire shipping route.</p> <p>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 comments.</p>	



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163	February 16, 2015	Personal Information Withheld - Lions Bay, British Columbia	<p>We are very concerned about seismic activity in Howe Sound, along the Sea to Sky Corridor and beyond. How prepared is the District of Squamish for a first response with the magnitude of a real jolt of an earth quake. Has anybody cared to look at the severe consequences. Just last Saturday, Valentine's Day, Feb 14th the Squamish Chief reported; "It was not just the beds that rocked, it was an earth Quake!"</p> <p>This project is way too close. Us and them would all be gone, gone!!!</p>	Seismic Hazard	<p>Thank you for the comment.</p> <p>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.</p> <p>The Project will be designed:</p> <ul style="list-style-type: none"> <li>• For a one in 2,475 year earthquake.</li> <li>• In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</li> <li>• 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</li> <li>• 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.</li> <li>• Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</li> <li>• Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</li> <li>• Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</li> <li>• 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.</li> <li>• 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.</li> <li>• Project components will be designed to accommodate a sea level rise of 0.5 metres.</li> </ul>	
164	February 16, 2015	Personal Information Withheld - Lions Bay, British Columbia	<p>We are really concerned about the noise and light pollution the immediate neighbours with young families, the elderly would have to endure. There is already enough sickness around without adding more elements. How can we justify to do this in our pristine part of B.C. so a few can benefit in far away places. SAY NO TO Woodfibre/LNG!!!!</p>	Effects of the Project on Noise, Light	<p>Thank you for the comment.</p> <p>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.</p> <p>Section 5.4 Atmospheric Sound of the Application assesses the potential Project-related effects to sound. The Application concluded there were no significant adverse effects. At a distance of approximately 500 m from the LNG carrier, the sound level is less than 35 dBA, which is equivalent to a soft whisper at 2 m. At a distance of less than 200 m from the LNG carrier, the sound level is less than 40 dBA, which is equivalent to a quiet living room (see Table 5.4-5 of the Application).</p> <p>Section 5.5 Light of the Application assesses the potential Project-related effects to light (sky glow and light trespass).</p> <p>Section 9.2 Public Health of the Application assesses the potential Project-related effects on the surrounding communities. The Application concluded that the Project will have negligible or not significant residual effects to human health.</p>	

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165	February 16, 2015	Personal Information Withheld - Lions Bay, British Columbia	<p>We are extremely concerned about the amount of water needed for the cooling process. This process is NOT allowed in many other countries. When will we learn. To suck out that much water on 24/7 // 365 days, killing whatever happens to be in pipes / drums.</p> <p>Species of any kind will be fried, chopped, choked, killed &amp; mutilated. How can we as a society simply say don't worry they are only fish. To top it off they will then return the water to the Sound at a higher temperature by close to 10 C. Insane practices for 2015.</p>	Seawater Cooling System	<p>Thank you for the comments.</p> <p>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.</p> <p>The intake used for the seawater cooling system will be designed to meet DFO BMPs for approach velocity and screen size, as outlined in <i>Guidelines for Minimizing Entrainment and Impingement of Aquatic Organisms at Marine Intakes in British Columbia</i>.</p> <p>The intake will be:</p> <ul style="list-style-type: none"> <li>located at a depth of more than 25 metres, which is below the depth where marine organisms are found in the greatest numbers.</li> <li>located approximately 2 metres above the seafloor, above sediment and bottom-dwelling organisms.</li> <li>covered by a coarse screen, which will stop larger marine life such as adult fish and seals from entering the pipe.</li> </ul> <p>Seawater will enter the intake at a velocity of 0.1 metres per second, which is less than the swim speed of adult fish.</p> <p>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>.</p> <p>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.</p> <p>The diffuser system design means that seawater temperature at a distance of 10m from each diffuser port will be less than one degree centigrade difference from the ambient seawater temperature. Furthermore a maximum temperature of 21°C is considered non-lethal to fish and mammals.</p> <p>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 information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
166	February 16, 2015	Personal Information Withheld - Lions Bay, British Columbia	<p>I am deeply concerned about the process of FRACKING. LNG being named and called clean energy. If one is not informed where this so called natural gas comes from you could be fooled and people still believe that it is clean. Why should we as honest, hardworking citizens of the Sea to Sky Corridor jeopardize our health, our safety, and well being, our livelihood by supplying China with LNG.</p>	Hydraulic Fracturing	<p>Thank you for your comment.</p> <p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>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 &amp; Gas Commission (OGC) regulates these extraction activities under the Oil &amp; Gas Activities Act and related regulations.</p>	
167	February 16, 2015	Personal Information Withheld -	How much insurance is WoodFibre LNG taking to cover the cost of an environmental disaster.	Insurance	<p>Thank you for your comment.</p> <p>Both Woodfibre LNG Limited and the LNG carriers will carry appropriate levels</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
		Lions Bay, British Columbia	Who are their underwriters??		of insurance, including coverage for any potential spills or discharge of pollutants, both marine and on-land.	
168	February 17, 2015	Personal Information Withheld - Powell River, British Columbia	Within the project brochure it was mentioned that busing workers in from Squamish and Vancouver was required during construction. Can you tell me if workers will be ferried to site or is there road access. Thank You.	Transport of Workers	Thank you for your question. During construction, the workers will be transported to the Project site by ferry from Darrell Bay. There is no road access to the site.	
169(i)	February 17, 2015	Personal Information Withheld - Gibsons, British Columbia	<p>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 &amp; Recreational Commission, and UBCM) Village of Lions Bay Powell River Regional District Town of Gibsons District of West Vancouver Bowen Island Municipality Islands Trust Galiano Parks &amp; Recreational Commission Sunshine Coast Regional District District of Squamish...no to boreholes permit Union British Columbia Municipalities (UBCM)</p> <p>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.</p> <p>They recognize that beautiful Howe Sound is not the right place for a Liquid Natural Gas (LNG) terminal.</p>	LNG Project Marine Transport Safety	<p>Thank you for your comments.</p> <p>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.</p> <p>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 WLNG is working hard to follow that example.</p> <p>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.</p> <p>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.</p> <p>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.</p>	
169(ii)	February 17, 2015	Personal Information Withheld - Gibsons, British Columbia	<p>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.</p> <ul style="list-style-type: none"> <li>What method is proposed to mitigate this environmental crisis?</li> </ul>	Effects of the Project on Marine Life	<p>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.</p> <p>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.</p> <p>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 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.</p> <p>Additional information on the seawater cooling system intake and discharge</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
					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 Limited response to public comments.	

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169(iii)	February 17, 2015	Personal Information Withheld - Gibsons, British Columbia	<ul style="list-style-type: none"> <li>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?</li> </ul>	Safety	<p>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.</p> <p>Information relating to the Canadian Coast Guard and their actions can be obtained through their website at <a href="http://www.ccg-gcc.gc.ca">www.ccg-gcc.gc.ca</a></p>	
170(i)	February 17, 2015	Delena Angrignon - Squamish, British Columbia	I am against the Woodfibre LNG project. I am wondering how the site was considered ok to put a LNG facility and port when they know that 2 Thrust faults are located underneath the WFLNG site. In the EA there is hint of a report. Why was the report not included for the public to view? A Thrust fault can create a Tsunami	LNG Project	<p>Thank you for your comments.</p> <p>Woodfibre LNG Limited looked at several sites for its project before finding one that was the right fit for an LNG facility. Home to industry and shipping for more than 100 years, the Woodfibre site features: industrial zoning, a deepwater port, access to a FortisBC pipeline network, and access to BC Hydro electricity.</p> <p>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.</p> <p>The Project will be designed:</p> <ul style="list-style-type: none"> <li>For a one in 2,475 year earthquake.</li> <li>In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</li> <li>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</li> <li>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.</li> <li>Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</li> <li>Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</li> <li>Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</li> <li>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.</li> <li>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.</li> <li>Project components will be designed to accommodate a sea level rise of 0.5 metres.</li> </ul>	
170(ii)	February 17, 2015	Delena Angrignon - Squamish, British Columbia	<p>Henrietta Dam sits above the site. According to a 2010 report, there may be issues with the Henriette Dam that is above Woodfibre Creek. It says in the Application "Henriette Dam was noted to be deficient to resist current earthquake loads (Sandwell 2010), and could possibly be breached and initiate a debris flow."</p> <p>The EA report seems to diminish the potential consequences. What is their response?</p>	Henriette Lake Dam	<p>Woodfibre LNG Limited has undertaken an initial structural assessment of the Henriette Lake Dam. Further studies and discussions with the relevant regulators are currently in progress by Woodfibre LNG Limited to assess the dam in accordance with the <i>British Columbia Dam Safety Regulation</i>. Henriette Dam will then be upgraded to comply with the <i>Dam Safety Regulation</i> as required.</p>	



Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
171	February 17, 2015	Delena Angrignon - Squamish, British Columbia	The EA process does not allow enough time to go through the documentation. 45 days to review the Woodfibre LNG Project application that numbers over 2,341 pages (not to mention the 7,008 pages in the appendices),  If this is to be a public process that allows for all citizens to be involved in, what is reasonable? We should get the full 180 days that the proponent gets.	Public Comment Period	Thank you for your comment.  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.	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 <a href="#">[Link]</a> .
172	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	After reading the Application for Environmental Assessment I am satisfied that Woodfibre LNG will pose not public or environmental threat.	LNG Project	Thank you, this comment is noted.	
173(i)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	Please explain to me how you feel WLNG will not impact tourism and marine safety especially relating to growing paddle board, kayaker and small craft recreation boaters in Howe Sound including but not limited to BC ferries transportation to Bowen and Langdale.	Effects of the Project on Tourism and Recreation	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 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.  According to the Canadian Coast Guard, there were a total of 12,909 large vessel movements in Howe Sound in 2013, all enabled by existing navigational aids along the route. The Woodfibre LNG Project will bring three to four LNG carriers to the site each month.  Woodfibre LNG Limited has committed to further consultation with recreation stakeholder groups in Howe Sound to identify concerns and, where practical, additional mitigation measures to reduce effects.  Please also refer to the Marine Transport, Marine Recreation and Sustainable Economy information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
173(ii)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	Please explain to me how wlng can be safe given the extreme unpredictable weather patterns we are seeing globally making it hard to predict and hard to prepare for in the event of heavy wind, large waves, extreme storm surges, plus earthquakes that are more frequent now and likely to impact any or all pipes traversing the Squamish estuary.	Effects of the Environment on the Project	<p>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.</p> <p>The Project will be designed:</p> <ul style="list-style-type: none"><li>• For a one in 2,475 year earthquake.</li><li>• In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</li><li>• 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</li><li>• 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.</li><li>• Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</li><li>• Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</li><li>• Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</li><li>• 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.</li><li>• 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.</li><li>• Project components will be designed to accommodate a sea level rise of 0.5 metres.</li></ul> <p>Woodfibre LNG notes that the pipeline is a part of 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:</p> <p><a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p>	

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173(iii)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	Please explain how you feel that overall WLNG will not negatively impact our environment, namely the marine life and ecosystem that will be sucked in to the plant each day for the cooling system, the added noise pollution to marine life plus flares and injera to risk over all.	Effects of the Project on the Environment	<p>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.</p> <p>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.</p> <p>The seawater cooling system will be designed to meet the Department of Fisheries and Oceans best management practices for approach velocity and screen size, as outlined in <i>Guidelines for Minimizing Entrainment and Impingement of Aquatic Organisms at Marine Intakes in British Columbia</i>.</p> <p>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.</p> <p>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 Limited response to public comments.</p>	
173(iv)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	Please explain how adding increased capacity and compressor station for Fortis close to residences in Squamish including a playground and tourist attraction will be safe?	Pipeline	<p>Woodfibre LNG notes that the pipeline and compressor station are 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:</p> <p><a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p>	

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173(v)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	Please explain to me how fracking up stream can be considered good for the environment Please explain to me the real true cost benefit for LNG given the low prices and our governments plan to reduce taxes. The economic argument is weak.	Hydraulic Fracturing Economic Justification of the Project	<p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>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):</p> <ul style="list-style-type: none"><li>• \$83.7 MILLION: Estimated in tax revenue for all three levels of government during the construction phase of the Project.</li><li>• \$86.5 MILLION: Estimated in tax revenue for all three levels of government per year of operation.</li><li>• \$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</li><li>• \$122.8 MILLION in GDP per year during operation.</li></ul>	
174	February 18, 2015	Personal Information Withheld - Henrietta, British Columbia	LNG better than an crude oil terminal.	LNG Project	Thank you, this comment is noted.	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
175	February 18, 2015	Kerry Brown - Squamish, British Columbia	I am concerned that the discharge of cooling water will adversely affect Howe Sound. The proponents have only done computer simulations and modelling. To the best of my knowledge they have not actually tested the currents in the area to see where the outflow will end up at different times of the year. I am particularly concerned about the affect on herring spawning., the sea urchin, and the sea star populations.	Seawater Cooling System	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Current directions were verified as reasonable by plotting scatter plots of velocity vectors.</p> <p>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 information sheet that has been prepared as part of Woodfibre LNG Limited response to public comments.</p>	



Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
176	February 18, 2015	Robin Burne - Squamish, British Columbia	<p>WLNG please keep the frack out of here!</p> <p>Too many negative things to say about this whole subject. I could go on for hours...fracking,earthquakes,contaminated aquifers,methane gas,poisonous liquid injections into the □, heated chlorinated water pumped into the ocean,pipeline under an estuary, pumping station in the middle of town, and I'm sure many many more negative things I haven't mentioned aaannnd what we're not being told about.</p> <p>Alllllll in the name of the all mighty dollar, economy over ecosystems</p> <p>Keep the frack away.....PLEASE</p>	Hydraulic Fracturing Greenhouse Gas Emissions Seawater Cooling System	<p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Woodfibre LNG notes that the pipeline and compressor station are 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:</p> <p><a href="http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html">http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_406_38521.html</a></p>	

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177(i)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	How will you protect the town and sound from earth Quakes that disrupt the plant?	Seismic Hazard	<p>Thank you for your questions.</p> <p>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.</p> <p>The Project will be designed:</p> <ul style="list-style-type: none"><li>• For a one in 2,475 year earthquake.</li><li>• In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</li><li>• 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</li><li>• 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.</li><li>• Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</li><li>• Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</li><li>• Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</li><li>• 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.</li><li>• 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.</li><li>• Project components will be designed to accommodate a sea level rise of 0.5 metres.</li></ul>	
177(ii)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	Are you in writing taking all responsibility for paying for all clean up for damages caused to the community and beyond for contaminant run offs, potential gas leaks ext?	Liability	<p>Both Woodfibre LNG Limited and the LNG carriers will carry appropriate levels of insurance, including coverage for any potential spills or discharge of pollutants, both marine and on-land.</p> <p>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 Part I – Pollution Prevention and Response</i>.</p>	
177(iii)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	Exactly how many people in Squamish are currently fully certified and have the necessary training to work at the LNG plant once open?	Workforce	<p>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.</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
177(iv)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	How much of the new power transmitters being built in Squamish for LNG will be paid for by LNG even if it does not go ahead as this is what they are really being built for?	BC Hydro	Woodfibre LNG Limited will be responsible for the full cost of connecting to the BC Hydro system and any transmission system upgrades necessary to serve its facility.  The BC Government announced the combined energy and demand charge for LNG facilities in 2014 will be \$83.02 per megawatt hour (MWh), before applicable taxes. This is over 50% more than the average rate paid in 2014 by industrial customers. LNG customers will also be required to contribute the full cost of connecting to the BC Hydro system, as well as transmission system upgrades required to serve their facilities.	
177(v)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	How much depreciation value loss of our homes are you willing to pay home owners out after our housing market collapses?	Property Values	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.	
177(vi)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	How do you suggest we sell or market our clean, environmentally conscious town that is focused on travel and tourism industry once we can no longer declare this due to LNG taking these claims away?	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 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.  Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.	
177(vii)	February 18, 2015	Personal Information Withheld - Squamish, British Columbia	Who will pay for our children and future generations medical bills and health care needs once the town is again filled with pollutants?	Air Quality	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.  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.	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
178	February 18, 2015	Personal Information Withheld - White Rock, British Columbia	<p>The environment and eco-tourism that is now putting Squamish on the map must be given priority over the LNG project. There is too much to risk with the pristine habitat that is home to many life forms from eagles to fish to dolphins to octopus to killer whales to salmon and on and on. This habitat must be preserved and never put at risk.</p> <p>The community of Squamish is starting to become known for it's connection to nature and eco-tourism is something they have been working towards for many years. I drive up to Whistler and always enjoy stopping in the Squamish area or Britannia or Porteau Cove or even spending time at Camp Potlatch on the waterfront in Howe Sound.</p> <p>LNG does not belong here.</p>	LNG Project	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	
179	February 18, 2015	Delena Angrignon - Squamish, British Columbia	<p>Woodfibre's EA application minimizes LNG tanker risk in Howe Sound.</p> <p>Page 11-22: "Scenarios associated with Project-related LNG carriers have been selected based on the worst-case major marine accidents. Since there is already a significant volume of commercial shipping traffic in Howe Sound, these marine scenarios, as well as other marine risks, are not new to the area.</p> <p>The meaning of this statement needs to be clarified because until now, commercial shipping has not involved such large quantities of highly hazardous cargo nor the amount of supertanker traffic.</p> <p>Page 11.36 "The vapour cloud could be ignited immediately due to the release itself (immediate ignition) or ignited in a delayed manner, caused by ignition sources in the vicinity. The consequence of an ignited vapour cloud is jet fire, pool fire, flash fire, or explosion, which are described more fully as a separate event scenario in section 11.3.8".</p>	Accidents and Malfunctions	<p>Thank you for the comments.</p> <p>The first quote in the comment is referencing a marine vessel event such as a grounding, allision or collision and potential loss of containment of fuel or LNG. The assessment of a Project-related marine vessel collision, allision or grounding with other vessels is assessed separately than an explosion or fire because a collision does not necessarily result in an ignited vapour cloud.</p> <p>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 standards.</p> <p>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.</p>	

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180(i)	February 18, 2015	Delena Angrignon - Squamish, British Columbia	<p>M7.3-10 Limits to Transit in Poor Weather – states that transits will be at the approval of the BC Coast Pilots and will follow studies conducted as part of the TERMPOL and through consultation with PPA.</p> <ul style="list-style-type: none"><li>Does the business model being used by Woodfibre LNG consider the weather limitations, risks and costs of delay?</li><li>What is the information source for BC Pilots for wind and weather conditions at Squamish since there is no Port Authority or management for Howe Sound? Who has determined what amount of risk is acceptable to the environment and the people of Howe Sound? In the event of an accident who will take charge?</li><li>The document states there will be two BC Coast Pilots on Board during transit through Howe Sound. What is the rationale for needing 2 pilots and where is this relationship to risk mitigation? What unique standards will BC Pilots apply for these unique vessels in our waters?</li></ul>	Marine Transport	<p>Thank you for the comments.</p> <p>Woodfibre LNG Limited is committed to safe LNG operations. Limitations of weather including risks and costs of delay from adverse weather are secondary to the safety policy.</p> <p>Woodfibre LNG followed provincial standards in applying the risk assessment for this environmental assessment including EAO's Valued Component Selection Guide. 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 in determining acceptable risk, prior to transiting Howe Sound. LNG carriers destined for the Woodfibre LNG terminal will hold a valid contractual arrangement with the Western Canada Marine Response Center. As part of this contractual arrangement, each vessel shares her Emergency Response Plan with the WCMRC and Canadian Coast Guard.</p> <p>Risk assessments for marine safety of LNG tankers in transit will also form a part of Woodfibre LNG's TERMPOL submission, which will become a public document once the Technical Review Committee have reviewed and submitted their recommendations. Woodfibre LNG is committed to complying with all recommendations from the TERMPOL Technical Review committee.</p> <p>The rationale for two BC Coast Pilots during transit is to overcome issues of fatigue that could arise, as the transit duration from the pilot boarding point to the Woodfibre LNG terminal will be approximately 12 hours.</p>	
180(ii)	February 18, 2015	Delena Angrignon - Squamish, British Columbia	<p>Howe Sound does not have over site by any port authority. Which authority has overall responsibility over safety of the LNG Terminal and shipping in Howe Sound now and in the future as commercial vessel traffic increases?</p>	Marine Transport	<p>Transport Canada has the authority with regards to marine safety and marine traffic within Canadian waters. Transport Canada will continue to monitor the shipping and marine-related traffic in Howe Sound through the Canadian Coast Guard Marine Communications and Traffic Services.</p>	



Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
181	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	The whole LNG project is a nightmare for most citizens of Squamish. I will not continue to live here if this goes through. Who would want to live in a toxic polluted waste land with no life in the ocean? Tourist revenue would be eliminated. LNG is just wrong. WLNG and those pushing it through are terrorists. Terrorizing our beautiful land and people in the community.	LNG Project	<p>Thank you for the comment.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please refer to the Seawater Cooling System, Public Safety, and Sustainable Economy information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	

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182	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	<p>I'm absolutely not in favour of this LNG facility. After attending the open houses I realized that the only way this project could ever pass a EA is if our standards are too low. Given the natural beauty of this area the standards should be even higher. There should be zero pollution allowed to enter the sound, or massive floating time bombs winding through narrow channels. We should not even be considering this ridiculous proposal. I keep hearing the only argument for as jobs, jobs jobs. Need I remind everyone that tourism is the greatest source of revenue from vancouver to whistler? Absolutely nobody is flying around the world to look at smoke stacks while being doused in acid rain. We're going to kill the golden goose with short sighted projects like this. We should go even further with a moratorium on fracking in the province of bc until all research has been done.</p>	LNG Project Safety Effects of the Project on Tourism	<p>Thank you for the comments.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please refer to the Seawater Cooling System, Public Safety, and Sustainable Economy information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	

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183(i)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	I feel it is going to be a disaster to our recreational Mecca ! It will kill all marine life with the warm toxic water it will put in Howe sound.	Effects of the Project on Marine Life	<p>Thank you for the comments.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	
183(ii)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	It doesn't make sense with the price of LNG going down,.	Economic Justification of the Project	<p>As LNG Projects involve significant capital investment which is recovered over a long period of time, proponent 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, proponents make FIDs based on long-term forecasts and take into account numerous factors, many of which are specific to the project or the proponent(s).</p>	
183(iii)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	Squamish has so much potential now as a tourist destination, I feel industry like that will destroy that. We will not see any financial gain and to have Tankers going up and down Howe Sound is a very bad idea!	Effects of the Project on Tourism	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Please also refer to the Sustainable Economy information sheet that has been</p>	

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					prepared as part of the Woodfibre LNG Limited response to public comments.	

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183(iv)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	LNG is not clean energy. We need to put some wind and solar in there! Squamish means windy place doesn't it? Let work with what we have naturally, for the sake of Human survival!	LNG Industry	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 Limited 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 <sup>16</sup> .	
184	February 19, 2015	Personal Information Withheld - British Columbia	I am against fracking and LNG because these wells are needed in such large numbers over conventional drilling, vast quantities of water are needed, the water table in drilling areas is ruined for 10,000 years, and LNG tankers, if they blow, are like small nuclear bombs.	Hydraulic Fracturing Safety	<p>Thank you for the comments.</p> <p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>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 standards.</p> <p>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</p>	
185	February 19, 2015	Pat & Ian Ridgway, Nanci Gaudry - Gibsons, British Columbia	<p>We are writing to express our grave concerns regarding the proposed LNG facility at the Woodfibre site in Howe Sound and the gas line that would be part of this operation. We do not want to see any heavy industry in Howe Sound which is only now recovering from previous industrial activity, and particularly not an LNG facility, which the residents of the area re-soundly rejected a number of years ago.</p> <p>Please do not allow this to proceed!</p>	LNG Project	<p>Thank you for your comment.</p> <p>Woodfibre LNG 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.</p> <p>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</p>	

<sup>16</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).



Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
					significant adverse residual effects to the environment.	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
186(i)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	I fully support this facility. Based on my research it is environmentally sound and has taken the public's views into account.	LNG Project	Thank you, this comment is noted.	
186(ii)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	My concern is that the proprietaries pay enough tax. Two million is inadequate in my opinion.	Taxes	<p>Woodfibre LNG Limited took ownership of the Woodfibre site in February, 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 during operation. Woodfibre LNG will contribute in many other ways as well. For example, should the Project go ahead, Woodfibre will pay:</p> <p>\$83.7 MILLION: Estimated in tax revenue for all three levels of government during the construction phase of the Project.</p> <p>\$86.5 MILLION: Estimated in tax revenue for all three levels of government per year of operation.</p> <p>\$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.</p> <p>For more information see Section 2.6 Project Benefits of the Application.</p>	
187	February 19, 2015	Personal Information Withheld - Lions Bay, British Columbia	I am against this project for 2 main reasons, the danger the tankers impose on everyone else in Howe Sound and all the Chlorinated water the LNG plant will pump into the ocean from cooling. So 1. Safety and 2. Environmental impact are too big.	Safety Seawater Cooling System	<p>Thank you for your comments.</p> <p>At Woodfibre LNG, safety is the number one priority.</p> <p>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.</p> <p>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 standards.</p> <p>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.</p> <p>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.</p> <p>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.</p>	

Comment #	Date Received	Author	Comment	Issue / Theme	Proponent's Response	EAO's Response
					<p>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.</p> <p>Additional information on the seawater cooling system intake and discharge was provided to the EAO on April 23, 2015. Please refer to the Public Safety, Marine Transport, and Seawater Cooling System information sheets that have been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
188(i)	February 19, 2015	Donna Shugar - Roberts Creek, British Columbia	<p>Please register my opposition to the Woodfibre LNG Project. While I do understand that the focus of the current provincial government on LNG is not the concern of this Environmental Assessment, I do feel it is important to express my concerns about that focus from the start. LNG is a fossil fuel and we must be redirecting our energy needs away from fossil fuels immediately. The extraction of natural gas by fracking is an environmentally destructive process. LNG has been applauded as a "clean" fossil fuel, an oxymoron if there ever was one! But the full life cycle costs from the standpoint of GHG emissions are not included in this calculation. But even if one accepts the use of LNG at this time, there are many important reasons to be concerned about locating a plant at Woodfibre.</p>	LNG Industry	<p>Thank you for your comments.</p> <p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>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 Limited 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<sup>17</sup>.</p> <p>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.</p>	

<sup>17</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).

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188(ii)	February 19, 2015	Donna Shugar - Roberts Creek, British Columbia	The potential for earthquake is one.	Seismic Hazard	<p>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.</p> <p>The Project will be designed:</p> <ul style="list-style-type: none"> <li>• For a one in 2,475 year earthquake.</li> <li>• In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</li> <li>• 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</li> <li>• 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.</li> <li>• Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</li> <li>• Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</li> <li>• Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</li> <li>• 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.</li> <li>• 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.</li> <li>• Project components will be designed to accommodate a sea level rise of 0.5 metres.</li> </ul>	
188(iii)	February 19, 2015	Donna Shugar - Roberts Creek, British Columbia	The competing uses of Howe Sound is another. How can we have enormous tankers in the same shipping space as passenger ferries, a pulp mill, tourist uses etc?	Marine Safety	<p>According to the Canadian Coast Guard, there were a total of 12,909 large vessel movements in Howe Sound in 2013, all enabled by existing navigational aids along the route. The Woodfibre LNG Project will bring three to four LNG carriers to the site each month.</p> <p>Subject to the recommendations of TERMPOL Woodfibre LNG Limited 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 m 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 manoeuvres at very short notice.</p> <p>Woodfibre LNG Limited has committed to further consultation with recreation stakeholder groups in Howe Sound to identify concerns and, where practical, additional mitigation measures to reduce effects.</p> <p>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 comments.</p>	

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188(iv)	February 19, 2015	Donna Shugar - Roberts Creek, British Columbia	Howe Sound is making a come back from an environmental perspective. Yet there are numerous industrial projects proposed for this sensitive area. Proceeding with this project is unwise.	LNG Project	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.	
189	February 19, 2015	Mary Cleaver - Vancouver, British Columbia	Dear Sir/Madam, I'm against the Woodfibre LNG Project because I believe the overwhelming scientific consensus that most of the oil and gas reserves in the ground must stay there if we're to avoid catastrophic climate change. Ramping up a new project, facilities and infrastructure for a fossil fuel industry in decline makes no sense from an environmental perspective and no sense from an economic one. I don't believe the future of BC's economic prosperity will be LNG and the sooner the province accepts that and stops wasting money and energy, the sooner they can invest those funds in tourism, renewable energy, health care, education, and other industries that will employ British Columbians to our present and future economic benefit.	LNG Industry	Thank you for the comment. 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% <sup>18</sup> . 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 <sup>19</sup> . China's energy demand increases by 5% annually <sup>20</sup> . 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) <sup>21</sup> . 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 Limited 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 <sup>22</sup> .	

<sup>18</sup> 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](http://www.bp.com/content/dam/bp/pdf/statistical-review/statistical_review_of_world_energy_2013.pdf)>  
<sup>19</sup> ICIS. China Natural Gas Annual Report <<http://www.icis.com/energy/channel-info-about/china-natural-gas-annual-report/>>  
<sup>20</sup> 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](http://public.woodmac.com/content/portal/energy/highlights/wk3_Nov_13/LNG%20Service%20and%20Tool.pdf)>  
<sup>21</sup> National Development and Reform Commission. 2014. Social Development and National Economics Statistics Bulletin 2011 – 2013.  
<sup>22</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).



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190	February 19, 2015	Personal Information Withheld	<p>Various species of salmon as well as lot's of other marine life depend on Howe Sound water quality. That includes diminished in recent years sea-run trout population such as cutthroat trout, steelhead and others. That includes Pink, Chum, Chinook, Coho salmon. Endless species of marine life.</p> <p>Any emission can be devastating for the fish! And a single accident during a fish run can potentially kill millions of fish and end those runs permanently.</p> <p>The project should not get approval.</p>	Effects of the Project on Marine Life	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p> <p>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 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.</p> <p>Please also refer to the Seawater Cooling System and Public Safety information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
191(i)	February 19, 2015	Personal Information Withheld - Britannia Beach, British Columbia	<p>How much of the LNG to be shipped from a proposed gas liquification plant is from Fracking???</p>	Hydraulic Fracturing	<p>Thank you for your questions.</p> <p>Woodfibre LNG acknowledges the expressed concern regarding hydraulic fracturing. Hydraulic fracturing activities are outside the EA scope of the Project.</p> <p>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.</p> <p>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.</p> <p>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 &amp; Gas Commission (OGC) regulates these extraction activities under the Oil &amp; Gas Activities Act and related regulations.</p>	

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191(ii)	February 19, 2015	Personal Information Withheld - Britannia Beach, British Columbia	How many liners of marked water will be introduced to the Howe Sound?	Wastewater Discharges	<p>Woodfibre LNG interprets this comment to be in reference to discharge of ballast water or wastewater from the LNG carriers.</p> <p>LNG carriers must comply with the <i>Canada Shipping Act 2011</i>, Ballast Water Control and Management Regulations. The regulations state that ballast taken onboard a vessel outside of waters under Canadian jurisdiction must be discharged at least 200 nautical miles from shore where water depth is at least 2000 m in order to avoid aquatic invasive species from foreign waters entering Canadian jurisdiction.</p> <p>In addition, all LNG carriers will comply with the International Maritime Organization (IMO) Regulations, MARPOL Annex IV (Prevention of Pollution by Sewage from Ships) and Annex V (Prevention of Pollution by Garbage from Ships). The LNG carriers will carry an International Sewage Pollution Prevention Certificate and Garbage Management Plan that prohibit the discharge of any wastewater or garbage within ports or offshore terminals.</p> <p>Further, as the LNG carriers proceeding to Squamish will initially enter US waters, they must comply with the US Environmental Protection Agency requirements for the National Pollutant Discharge Elimination System Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels.</p>	
192	February 19, 2015	Personal Information Withheld - Britannia Beach, British Columbia	What benefit will come to Britannia Beach, Furry Creek, Lions Bay, Gibsons and Bowen Island???	Economic Benefits of the Project	<p>Thank you for your question.</p> <p>Britannia Beach, Furry Creek, Lions Bay and Bowen Island communities are included in the local assessment area (LAA) for the economic assessment of the Project. Aggregate direct, indirect and induced taxes in the LAA are estimated at \$87.5 million in tax revenue during construction and \$86.5 million annually for all three levels of government.</p> <p>Gibsons is included in the regional assessment area (RAA). For the RAA, total annual tax impacts for all three levels of government are estimated at \$111.9 million for construction and \$209.4 million during operations.</p> <p>Please also refer to the Sustainable Economy information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
193	February 19, 2015	Personal Information Withheld - Britannia Beach, British Columbia	My comment... How do I protect my self from what I consider industrial terrorism???	LNG Project	<p>Thank you for the comment.</p> <p>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.</p> <p>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.</p>	

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194	February 19, 2015	Personal Information Withheld - Howe Sound, British Columbia	Your former chief EAO representative at last year's Open House in Squamish, moved on the very next day to promote the LNG cause in Kitimat.. So, while he was supposed to be representing the EAO he had actually been already hired by Chevron in Kitimat to promote the LNG cause. He has since been hired by Woodfibre to promote their cause. Is this not a Blatant Conflict Of Interest?? . This information has been shared with many people and brings into question the honesty of this process, and many of them take into question how transparent this process is..so far we are not impressed .. It will be interesting to see how neutral you are and if this comment will be published. Many of us are watching.	Environmental Assessment Office	This comment is noted.	<p>The previous Project Assessment Manager was subject to the Standards of Conduct for B.C. Public Service Employees.</p> <p>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 <a href="#">[Link]</a>.</p>
195	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	As far as I can determine, there is no emergency moorage for LNG tankers planned in Howe Sound. Please confirm. If true, please explain why such emergency moorage is NOT planned for.	Emergency Moorage	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p>	
196	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	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	<p>Thank you for your question.</p> <p>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.</p> <p>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.</p> <p>Refuelling and bunkering for the LNG carriers will occur outside of Howe Sound, and will be the responsibility of the LNG carrier owners.</p>	
197(i)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	DO LNG FACILITIES BURN A FLARE?? HOW OFFEN IS THE FLARE BURRED?? WHAT EMISSIONS COULD YOU FIND WHEN THE FLARE IS BURNED?	Flaring	<p>Thank you for your questions.</p> <p>Yes there will be a flare. The flare will be burning less than 3% of the time: at start-up, during maintenance and in the event of an emergency.</p> <p>Emissions from the flare are included in the assessment in Section 5.2 Atmospheric Environment (Air Quality).</p> <p>Please also refer to the Air Quality information sheet that has been prepared as part of the Woodfibre LNG Limited response to public comments.</p>	
197(ii)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	WHAT HAPPENS TO IMPURITIES THAT ARE EXTRACTED FROM THE RAW GAS AT THE AT LNG FACILITIES??	Liquefaction Process	<p>A sour gas removal unit is use to remove hydrogen sulphide, other sulphur components, and carbon dioxide from the FEED gas, which is 'sales gas' (i.e. same quality gas other customers receive). Sour gas is sent to the thermal oxidizer where it is burnt before being released to atmosphere.</p> <p>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.</p>	

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197(iii)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	BURNING NATURAL GAS AS A FUEL IS A CLEANER ENERGY SOURCE, BUT HOW CLEAN IS A PLANT WHICH REFINES AND LIQUIFIES THE NATURAL GAS??	Liquefaction Process	<p>Woodfibre LNG will use electric drive, instead of gas turbine, to power the liquefaction process refrigerant compressors. The decision to power the plant with electricity was made following community consultation, where Woodfibre LNG heard from community members who were concerned about air emissions.</p> <p>By powering the plant with electricity from BC Hydro, and not natural gas, it will reduce greenhouse gas emissions by about 80%, making the Woodfibre LNG facility one of the cleanest LNG facilities in the world.</p> <p>Section 5.2 Atmospheric Environment (Air Quality) of the Application includes an assessment of the potential effects of the Project on 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.</p>	

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197(iv)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	IF LNG IS -162C WOULD THAT MEAN IT WOULD IMMEDIATELY BOIL IF EXPOSED TO THE ATMOSPHERE OR WATER?? AND EXPAND INTO AN EXPLOSIVE OR ASPHYXIATING GAS???	Properties of LNG	<p>No this is not correct. If LNG were to come in contact with warmer air, it would start to return to a gaseous state. Since natural gas is less dense than air, it would evaporate into the atmosphere.</p> <p>While in liquid form, natural gas cannot burn or explode. This is because there is no oxygen or air in LNG, which is required for either of those reactions to occur. While in a gaseous state, there are very specific conditions under which natural gas could ignite or potentially explode: the gas must be in a confined space, the right fuel-to-air ratio must be met, and there must be a spark<sup>23</sup>.</p>	
197(v)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	WHY WOULD YOU EXPOSE CANADIANS TO THE TOXIC REFINING SIDE OF NATURAL GAS SO THAT PEOPLE IN CHINA CAN BURN A CLEANER FUEL FOR THEIR INDUSTRY??	Liquefaction Process	<p>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 Limited 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<sup>24</sup>.</p> <p>A literature review of key studies of comparing emissions from natural gas and coal can be found here: <a href="http://www.capp.ca/getdoc.aspx?DocId=215278&amp;DT=NTV">http://www.capp.ca/getdoc.aspx?DocId=215278&amp;DT=NTV</a></p> <p>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.</p>	
197(vi)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	WHY ARE THE B.C. AND CANADIAN GOVERNMENT PUSHING SO HARD TO GET THIS SYSTEM IMPLEMENTED? WHAT'S IN IT FOR THEM???	LNG Industry	<p>Woodfibre LNG understands that this comment is directed to the government, however in the context of this Project, Woodfibre LNG Limited offers the following information:</p> <p>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):</p> <p>CONSTRUCTION JOBS</p> <ul style="list-style-type: none"><li>• Create 650+ jobs each year of construction.</li><li>• Create an additional 1,080+ jobs (indirect* and induced** employment) during the construction phase of the Project.</li></ul> <p>LONG-TERM OPERATION JOBS</p> <ul style="list-style-type: none"><li>• Create 100+ local jobs during operation.</li><li>• Create an additional 330+ local jobs (indirect* and induced**) during operation.</li></ul> <p>*Indirect impacts arise from changes in activity for suppliers.</p> <p>**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.</p> <p>Accounting and Consulting firm MNP found the following economic benefits of the project (2014 CAD):</p> <ul style="list-style-type: none"><li>• \$83.7 MILLION: Estimated in tax revenue for all three levels of government during the construction phase of the Project.</li><li>• \$86.5 MILLION: Estimated in tax revenue for all three levels of government per year of operation.</li></ul>	

<sup>23</sup> International Group of Liquefied Natural Gas Importers. LNG Information Paper No. 1: Basic Properties of LNG. <[http://www.giignl.org/sites/default/files/PUBLIC\\_AREA/About\\_LNG/4\\_LNG\\_Basics/Ing\\_1\\_-\\_basic\\_properties\\_7.2.09\\_aacomment-aug09.pdf](http://www.giignl.org/sites/default/files/PUBLIC_AREA/About_LNG/4_LNG_Basics/Ing_1_-_basic_properties_7.2.09_aacomment-aug09.pdf)>

<sup>24</sup> Centre for Liquefied Natural Gas. [http://www.lngfacts.org/resources/CLNG-PACE\\_Study\\_one-pager.pdf](http://www.lngfacts.org/resources/CLNG-PACE_Study_one-pager.pdf).



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					<ul style="list-style-type: none"> <li>• \$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</li> <li>• \$122.8 MILLION in GDP per year during operation.</li> <li>• Please refer to Section 2.6 Project Benefits of the Application. Additional benefits from the Project are described in greater detail in Section 6.2 Labour Market, Section 6.3 Sustainable Economy and Section 7.2 Infrastructure and Community Services.</li> </ul>	
197(vii)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	IS IT TRUE THESE THOUSANDS OF QUALITY HIGH PAYING JOBS ARE ONLY FOR THE FEW YEARS THE PROCESSING FACILITIES ARE BEING BUILT?? ONCE OPERATIONAL, WILL JOB OPPORTUNITY AT FACILITIES BE REDUCED TO A HUNDRED SKILLED PERSONEL??	Workforce	<p>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):</p> <p>CONSTRUCTION JOBS</p> <ul style="list-style-type: none"> <li>• Create 650+ jobs each year of construction.</li> <li>• Create an additional 1,080+ jobs (indirect* and induced** employment) during the construction phase of the Project.</li> </ul> <p>LONG-TERM OPERATION JOBS</p> <ul style="list-style-type: none"> <li>• Create 100+ local jobs during operation.</li> <li>• Create an additional 330+ local jobs (indirect* and induced**) during operation.</li> </ul> <p>*Indirect impacts arise from changes in activity for suppliers.</p> <p>**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.</p> <p>For more information, please refer to Section 2.6 Project Benefits of the Application. Additional benefits from the Project are described in greater detail in Section 6.2 Labour Market, Section 6.3 Sustainable Economy and Section 7.2 Infrastructure and Community Services.</p>	
197(viii)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	WHAT TYPES OF GASES AND LIQUID EMISSIONS WILL COME FROM THE LNG FACILITY?? WHAT ARE GOV'T REGULATIONS CONTROLLING SUCH EMISSIONS AND WHAT HEALTH RISKS WILL THEY POSE TO PEOPLE LIVING NEARBY???	Project Emissions	<p>Emissions from the Woodfibre Project will all be below relevant criteria. Information on the air quality emissions are 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.</p> <p>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.</p> <p>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.</p> <p>Please also refer to Air Quality and Seawater Cooling information sheets that have been prepared as part of the Woodfibre LNG response to public comments.</p>	
197(ix)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	WHERE DOES LNG GET ITS FUNDING?? HOW MUCH FUNDING DOES LNG RECEIVE FROM GOV'T OR GOV/T AGENCIES??	LNG Funding	Woodfibre LNG Limited is a privately-owned company that receives no public funding.	

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197(x)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	WILL THE GOV'T BE INSTALLING AN AIR QUALITY STATION (WHICH TESTS FOR KNOWN LNG EMISSIONS) IN SQUAMISH THIS SPRING, TO CREATE A PROFILE OF EXISTING CONDITIONS BEFORE A POSSIBLE LNG APPEARS ON THE HORIZON??	Air Quality Monitoring Station	Existing air quality conditions are included in Section 5.2 Atmospheric Environment (Air Quality) and Appendix 5.2-1 Air Quality and Meteorology Baseline Report of the Application. Existing air quality stations used to establish the existing air quality conditions for the indicator compounds include the BC MOE Squamish station, the Langdale Elementary station in the Town of Gibson and the Horseshoe Bay station.  Woodfibre LNG Limited will support the MOE if the decision to add additional air quality monitoring stations is made.	
197(xi)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	WHAT PRECAUTIONS ARE BEING CONSIDERED FOR SUCH A FACILITY IN AN EARTHQUAKE ZONE??	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: <ul style="list-style-type: none"> <li>• For a one in 2,475 year earthquake.</li> <li>• In accordance with CSAZ276, Liquefied Natural Gas Production, Storage and Handling, with respect to their specific requirements for seismic design of LNG plants.</li> <li>• 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</li> <li>• 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.</li> <li>• Project components, including bridges, will be designed for the 200-year instantaneous peak flows on Mill Creek and Woodfibre Creek.</li> <li>• Buildings will be constructed at different elevations that correspond to their risk category in case of flooding.</li> <li>• Qualified professionals will be engaged to conduct a debris flow and debris hazard assessment prior to construction.</li> <li>• 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.</li> <li>• 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.</li> <li>• Project components will be designed to accommodate a sea level rise of 0.5 metres.</li> </ul>	
197(xii)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	WHAT STUDIES HAS LNG FACILITATED IN THE LOCAL AREA TO PROVIDE BACKGROUND FOR THEIR PLANTS AND THEIR EFFECTS ON LOCAL ECOLOGY/ENVIRONMENT???	Environmental Baseline Studies	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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197(xiii)	February 19, 2015	Personal Information Withheld - Squamish, British Columbia	WHAT ARE THE GOV'T STANDARDS REGARDING LEAKAGE AT A LNG PLANT??? HAS LNG DONE ANY VAPOR DISPERSION MODELS TO SEE WHAT IMPACT ANY SIZE LEAK WOULD HAVE ON THE CONFINED SQUAMISH VALLEY???	LNG Facility Standards	LNG facilities must comply with the Canadian Standards Association (CSA) Z276 – Standard on Liquefied Natural Gas (LNG) – Production, Storage and Handling. This standard establishes essential requirements and minimum standards for the design, installation, and safe operation of LNG facilities. Please refer to Appendix 11-1 of the Application, which is a quantitative risk assessment (QRA) conducted for the Project. The QRA contains vapour dispersion. Additional information on accidents and malfunctions was provide to the EAO on April 23, 2015.	
198	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	I am concerned about the type of cooling system that is being proposed and what effect that might have on marine life. 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?	Seawater Cooling system	<p>Thank you for your comment.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	

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199	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	In the Environmental Assessment on pg 5.16-29 Woodfibre recognizes that the cooling system as it stands will probably kill plankton and larvae. It says: "As a result, measurable 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	<p>Thank you for your comment.</p> <p>The entire statement referred to is as follows:</p> <p><i>"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."</i></p> <p>The environmental design features that will be implemented to reduce entrainment and impingement are listed in the paragraph above:</p> <p><i>"The following design measures are recommended to mitigate effects associated with entrainment or impingement:</i></p> <ul style="list-style-type: none"><li><i>• 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.</i></li><li><i>• The intake will be located 2 m above the seafloor to reduce the potential for entrainment or impingement of benthic fauna.</i></li><li><i>• The intake will contain a screen with mesh size no larger than 4.75 mm to prevent entrainment of adult and juvenile benthic invertebrates.</i></li><li><i>• 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.</i></li><li><i>• 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."</i><p>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.</p></li></ul>	
200	February 19, 2015	Brent O'Malley - Bowen Island, British Columbia	I am concerned about shoreline and infrastructure damage from LNG tanker bow and stern wakes. Please tell be what the proponent is planning to mitigate damage from the LNG vessels and the tugs that are assisting them in Howe Sound.	Effects from Shipping Wake	<p>Thank you for your comment.</p> <p>As part of the Application, a Vessel Wake Assessment was carried out by Moffatt &amp; Nichol. Moffatt &amp; 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.</p> <p>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.</p> <p>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 &amp; Nichol, the potential wake effects were determined to be negligible (i.e., they would not have a measurable change).</p> <p>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.</p>	