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September 19, 2016

The Honourable Catherine McKenna, P.C., M.P. Minister of Environment and Climate Change  
The Honourable Jane Philpott Minister of Health  
The Honourable Carolyn Bennett Minister of Indigenous and Northern Affairs

House of Commons Ottawa, Ontario Canada K1A 0A6

Dear Ministers McKenna, Philpott and Bennett:

**Re: Support for CAPE position on the rejection of the Pacific Northwest Liquefied Natural Gas (LNG) Project**

The Public Health Association of British Columbia (PHABC) is a voluntary, non-profit, non-government organization, whose mission is to promote health, wellbeing and equity for all British Columbians through leadership in public health. The association is made up of public health professionals ranging from students, researchers, policy makers, practitioners and academics in the field. As a member-driven organization, we fulfill our mission through advocacy, collaboration and engagement activities, education, and research throughout the spectrum of public health practice and systems including prevention, promotion, protection and policy.

The PHABC pursues cross-sectoral partnerships with allies in NGOs, civil society and government to help advance evidence-based policies that promote the health and wellbeing of the people of British Columbia. Addressing climate change and healthy environments has been identified as one of our key strategic priorities. Therefore, we are in full support of the Canadian Association of Physicians for the Environment (CAPE)'s position related to the health impacts of Pacific NW LNG Project.

As CAPE points out “the threat posed to human health by the changing climate is so severe that the World Health Organization calls it the “greatest threat to global health of the 21st century”(1) and calculates that, between 2030 and 2050, at least 250,000 additional people worldwide will die prematurely every year as a result of climate change from malnutrition, heat stress, diarrhea and malaria alone. (2) The second Lancet Commission on Climate Change pointed out that “The effects of climate change are being felt today, and future projections represent an unacceptably high and potentially catastrophic risk to human health.” (3)

Second, as noted in the letter, “in direct local terms, there is a rapidly mounting body of evidence which suggests that significant local health impacts are associated with hydraulic fracturing.” A recent systematic assessment of the peer-reviewed scientific literature (2009-2015) concluded that “84% of public health studies contain findings that indicate public health

hazards, elevated risks, or adverse health outcomes; 69% of water quality studies contain findings that indicate potential, positive association, or actual incidence of water contamination; and 87% of air quality studies contain findings that indicate elevated air pollutant emissions and/or atmospheric concentrations.”(4) Of particular concern is a literature review by Balise et al (5) outlining potential effects of hydraulic fracturing exposure on human reproduction, such as birth outcomes associated with material exposure, semen quality and birth outcomes associated paternal exposure, reproductive cancers, and disruption of human sex steroids. Much evidence is available suggesting disruption of the estrogen, androgen, and progesterone receptors by oil and gas chemicals, providing scientific rational for these reproductive risks. This evidence needs to be incorporated into public discussion and decision-making in the form of comprehensive health impact assessments including greenhouse gas emissions and water usage impacts, as supported by the Canadian Medical Association. This has not reliably happened to this point in the industry. This project, and further projects involving LNG and hydraulic fracturing should not go forwards without comprehensive health impact assessments that are well-communicated to the impacted communities, and where the utmost effort is made to mitigate forecasted health impacts.

Water is a clear determinant of human health. As the CAPE letter points out, the volume of water required for this project is extremely large, and according to the first comprehensive study of groundwater to be carried out in the Peace River area, “the groundwater regime has been very poorly monitored and is still very poorly monitored” and “Adequate characterization and monitoring programs need to be designed and implemented very rapidly”. (6) To approve a project involving toxic chemicals of largely unstudied effects on human health in the face of such inadequate monitoring of water resources would be reckless.”

Finally, the number of hydraulic fracturing wells that will be required to supply this project is extremely large—estimated by the Pembina Institute to peak at 842 wells drilled in 2020 and can be expected to change the landscape enough to adversely impact the health of directly-affected populations. (7) The Blueberry River First Nations (BRFN) have petitioned the province of BC to quash its royalty agreement regarding this project, stating, “The infrastructure development required by the long term royalty agreement and planned by Progress Energy would cause serious harm to Blueberry Rivers First Nations territory and treaty rights...It would destroy, fragment, pollute and otherwise disturb thousands of acres of animal habitat.”(8) BC’s First Nation’s Health Authority (‘FNHA’) recently made clear the strong links between First Nations, the land and resources, culture and associated health outcomes in the initial findings of the Mount Polley Health Impact Assessment. (9) The FNHA report confirms that:

“The Aboriginal population in Canada is vulnerable to changes in environmental and socioeconomic conditions stemming from resource development projects. This vulnerability is primarily due to their physical, mental, spiritual, and emotional connections to traditional land and natural resources. And it is underpinned by a history of adverse cultural impacts of colonialism and subsequent assimilation practices spanning more than 150 years.”(9)

Climate change is an emergency that demands attention to targets and timelines. Hydraulic fracturing is a technology where the health research is just catching up with practice, though the long-term impacts are unknown—and is raising red flags. The state of Aboriginal health in Canada is deplorable and must be a priority if we are to enter a new era of reconciliation. The health impacts of this project in all of these areas could be severe and have not been well examined. We strongly urge to consider the evidence before making a policy decision that will impact British Columbians for generations to come.

Sincerely,



Paola Ardiles  
PHABC President

#### References

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