

(submitted via <http://www.nbchf-cnbfh.ca/participate>)

November 20, 2015

**Dear members of the New Brunswick Commission on Hydraulic Fracturing,**

Thank you for taking on this important role and giving the people of New Brunswick a voice on this issue. The Council of Canadians has more than 3,300 supporters in the province along with four active volunteer chapters (in Fredericton, Saint John, Moncton and Kent County) and wanted to take this opportunity to raise our concerns.

**Who we are**

The Council of Canadians is Canada's leading social action organization with over 100,000 grassroots supporters and 60 local chapters from coast to coast. Through our campaigns, we advocate for clean water, green energy, fair trade, public health care and a vibrant democracy. We educate and empower people to hold our governments and corporations accountable.

We are supported by individual donations from ordinary Canadians and do not accept funding from corporations or government.

We have called for a ban on fracking in New Brunswick and across Canada, given our many concerns, including the massive volumes of water required and the lack of safe methods to dispose of fracking wastewater. Fracking also has huge climate impacts. There is widespread community opposition to fracking, including from our 3,300+ supporters in the province.

**Concerns regarding the Commission's methodology**

The Commission in New Brunswick is an avenue to have our concerns heard. We respect that this Commission was selected by the New Brunswick government to provide recommendations to the Gallant Liberal government regarding the future of shale gas hydraulic fracturing in the province, based on science and community feedback.

With that said, we are concerned with the lack of public meetings as a means of gauging the public's perspectives on the issue. In addition, New Brunswick has lower than average levels of literacy ([with 18.5% of the NB population aged between 16 and 65 falling into the category of low literacy \(PIAAC 2013\)](#)). Public consultations would help ensure this process is as accessible as possible.

### **Fracking moratoria in the Atlantic**

There has been a wave of fracking moratoria in the Atlantic. Both Newfoundland and Labrador and Nova Scotia introduced legislation implementing a moratorium on fracking. In Nova Scotia, the government adopted the recommendations from the independent review panel that studied fracking, and held community meetings to gather input. Communities have been fervently opposed to fracking in all areas.

Nova Scotia's independent review panel resulted in recommendations to government, which then legislated the moratorium into Nova Scotia law in November 2014. Newfoundland and Labrador's independent review panel recently held public consultation meetings in four communities in Western NL. Presenters and audience members alike voiced their strong opposition to fracking. The panel expects to complete their report with recommendations to the NL Minister of Natural Resources by February 2016.

New Brunswick has been arguably the most dramatic jurisdiction in showing opposition to the industry, including the botched LaPierre report, SWN's seismic testing in Kent County and Elsipogtog, and the Conservatives' loss in the last provincial election based in large part to their explicit support for the shale gas industry.

Our submission will outline the concerns communities are expressing about fracking and outline reasons why New Brunswick should put a permanent stop to fracking.

### **Social Licence**

In terms of social licence, we are surprised to a certain extent that the Commission hasn't provided a definition of the term, given there are varying perspectives on what entails "social licence."

The Council of Canadians, its supporters and our chapters in New Brunswick, have been or continue to be actively involved in supporting [a legal challenge](#) that maintains that fracking is not safe. The legal challenge seeks an injunction to prevent the approval of any additional activity for shale gas development in the province. The Government of New Brunswick is named as the respondent or defendant in this case. In short, this challenge argues, the government must prioritize the welfare of

its citizens before any actions are taken where there is clear risk of negative health and social outcomes.

### **Potential impacts on water (ground and surface water)**

Fracking uses unsustainable amounts of water. A fracking project requires anywhere from 10 million to 200 million litres of water. Between 2007 and 2009 Nova Scotia Environment permitted the withdrawal of up to 1,334,000 litres of freshwater per day from the Kennetcook River for fracking. While the permitted amount was not fully used, the fact that such a high volume was approved is unacceptable.

Penobsquis, in South-Western New Brunswick, has had many shale gas fracking projects, predominantly by Corridor Resources, since the year 2000. The Council of Canadians made a [submission to the UN Special Rapporteur](#) on the Human Right to Safe drinking Water and Sanitation in March 2014 to highlight concerns around several households in the community losing access to drinking water.

Groundwater contamination is also a big concern, which will be highlighted in the next section. Water is central to the very existence of people, plants and animals, and all of it must be protected for the common good from generation to generation.

### **Waste management and management of “additives”**

Fracking wastewater is a key threat to drinking water, the environment and public health. Current methods of disposing of fracking wastewater include sending the wastewater to treatment plants before discharging it into waterways, or injecting the wastewater back into the ground.

A typical fracked well requires the use of between 55,000 and 220,000 litres of chemicals (source: Memorandum to Minister: Regulation and Environmental Impacts of Shale Gas in Canada, Environment Canada, MIN-144492, March 8, 2011, p.3), but the specific combination and quantities of chemicals used are considered proprietary trade secrets. While some companies are voluntarily reporting some of the chemicals they use, they are not legally required to disclose the full list. The lack of information about fracking chemicals makes it extremely difficult to know what chemicals are in fracking wastewater and what potential health risks they pose.

The National Wildlife Federation points out that there are 13 different types of chemical additives that are needed in the hydraulic fracturing process, including acids, clay stabilizers, gelling agents, corrosion inhibitors, biocides, friction reducers, and surfactants. The Endocrine Disruption Exchange has warned that these chemicals have a range of negative health and environmental impacts.

Under the Chemicals Management Plan (CMP), Environment Canada reviewed 265 chemicals used in the fracking process in both Quebec and the U.S. Approximately half of the fracking chemicals did not meet the CMP criteria for further investigation, meaning these chemicals have not been assessed for potential risks to the public. The list of chemicals was obtained through an Access to Information request (<http://canadians.org/sites/default/files/ATI-fracking-chemicals-1013.pdf>).

A recent study published by the Proceedings of the National Academy of Sciences showed that drinking water in several Pennsylvania homes was contaminated by fracking chemicals. (<http://www.pnas.org/content/early/2015/05/01/1420279112>)

Chemicals used in the fracking process pose a threat to our water sources, ecosystems and public health because there are currently no safe methods to dispose of fracking wastewater. Governments around the world (including much of Western Canada as well as New Brunswick, until 2014) have continued to approve fracking permits despite the lack of information on the type and amount of chemicals, or an assessment of the impacts of water sources and public health.

Additionally, municipal wastewater plants are not equipped to deal with fracking wastewater. When the wastewater flowback is discharged into waterways, it is a threat to drinking water supplies since many of the chemicals are undisclosed. While immediate effects may not always be detected, Cornell University Professor of Engineering Tony Ingraffea notes that the effects of fracking are cumulative. So although communities may not see immediate impacts on their drinking water, communities will see the effects of fracking in 10 or more years.

### **Seismicity and Geological Risks**

The B.C. Oil and Gas Commission (BCOGC) has linked the injection of fracking wastewater into the ground with earthquakes in northeastern B.C. (<https://www.bco.gc.ca/node/8046/download>). The BCOGC's report, *Investigation of Observed Seismicity in the Horn River Basin*, provides an overview of 38 seismic events recorded by Natural Resources Canada (NRCAN) ranging from 2.2 to 3.8 M on the Richter scale from April 2009 to July 2011. There were no seismic events recorded from 1985 to April 2009. The report found that, "The seismicity observed and reported by NRCAN in the Horn River Basin between April 2009 and December 2011 was induced by fault movement resulting from injection of fluids during hydraulic fracturing."

The U.S. Geological Survey also warned that in "some locations the increase in seismicity coincides with the injection of wastewater in deep disposal wells. Much of this wastewater is a byproduct of oil and gas production and is routinely disposed of by injection into wells specifically designed for this purpose." ([http://www.usgs.gov/blogs/features/usgs\\_top\\_story/man-made-earthquakes/](http://www.usgs.gov/blogs/features/usgs_top_story/man-made-earthquakes/)). Other places where the injection of wastewater has triggered seismic activity include Youngstown, Ohio, Oklahoma, and Blackpool in the UK. The process of fracking itself has also recently been linked to earthquakes in Poland Township, Ohio. ([http://www.seismosoc.org/society/press\\_releases/BSSA\\_105-1\\_Skoumal\\_et\\_al\\_Press\\_Release.pdf](http://www.seismosoc.org/society/press_releases/BSSA_105-1_Skoumal_et_al_Press_Release.pdf))

## Air Emissions

Despite industry representatives and some governments promoting natural gas as a “clean, green fuel,” [studies](#) show that fracked natural gas can produce as much if not more greenhouse gas emissions as coal (<http://canadians.org/sites/default/files/publications/fracking-climate-change.pdf>; <http://www.desmogblog.com/cornell-fracking-shale-gas-more-dangerous-than-coal-climate>).

Fracking releases large amounts of natural gas (whether the fracking operation is for oil or natural gas), which consists of both CO<sub>2</sub> and methane, directly into the atmosphere. Fracking wells leak 40 to 60 per cent more methane than conventional natural gas wells. This happens when water is forced down into a fracking well in order to fracture the rock formations. Methane flows up the well and is released into the atmosphere before it can be captured. The leaked methane is called “fugitive methane” and has been detected using infrared video. It is identified as different from naturally occurring methane. Methane, in particular, is a very powerful greenhouse gas because it can trap 20 to 25 times more heat in the atmosphere than carbon dioxide.

## Socio-economic impacts

It is not uncommon for governments to propose environmentally risky projects in rural, low-income and poverty stricken communities. A recent study published in Applied Geography showed that unconventional wells were found more in communities with low income populations in Pennsylvania. (<http://www.sciencedirect.com/science/article/pii/S0143622815000776>) Health, environmental and other impacts could exacerbate challenges facing already vulnerable populations (like purchasing healthy or organic food on low income, securing employment when you are sick, increased levels of stress around making ends meet, etc.).

Many pro-fracking arguments are based on job creation and income potential for the jurisdiction, but the reality is that beyond temporary construction and trucking jobs, few permanent, full-time jobs are created (<http://www.alternet.org/fracking/fracking-towns-desperate-laid-workers-they-dont-tell-you-its-all-lie>). Those few jobs created typically have poor working conditions and pose risks to workers’ health. In a briefing titled *Health Implications of Fracking for Natural Gas in the Great Lakes-St. Lawrence River Basin*, Dr. Theo Colborne noted that some workers were required to sign contracts preventing them from ever revealing their hourly wage or health problems.

U.S. organization Food & Water Watch (FWW) has also produced reports showing that the estimate of new jobs for fracking projects is overblown and misleading. In their report *Exposing the Oil and Gas Industry’s False Jobs Promise for Shale Gas Development: How Methodological Flaws Grossly Exaggerate Jobs Projections*, FWW points out that the Public Policy Institute of New York State (PPINYS) boasted that developing 500 new shale gas wells every year in the five counties of Allegany, Broome, Chemung, Steuben and Tioga would create 62,620 new jobs in New York by 2018. But when FWW analyzed employment data from the Bureau of Labor Statistics in counties with shale gas development in Pennsylvania and compared them to bordering counties in New York without shale

gas development, the organization found these claims to be baseless. In fact, FWW found that opening up the five counties in New York to fracking would create no more than two jobs per well in the state compared to PPINYS' claims of 125 jobs per well. Some of the jobs would be in construction, retail or the food industry rather than solely in the drilling industry.

Job estimates often do not make clear where the workers will come from and how the local community will actually benefit. Industry fails to consider the negative impacts that fracking would have on existing employment in other industries, such as tourism and agriculture. In 2013, the New Brunswick tourism industry was estimated to contribute [\\$1.1 billion in tourism-related spending](#) to the provincial economy. It is not clear how this industry might be negatively impacted if shale gas were to become a bigger industry. Gros Morne National Park in Newfoundland received international attention when UNESCO raised concerns about how fracking would affect the park, potentially jeopardizing its World Heritage Site status and the local tourism industry in that province.

[CBC recently reported on cranberry farmers' concerns](#) about shale gas development in New Brunswick: “[Maurice] Albert says if gas is found in the shale, he's worried for his family's farm. “It's extremely important to the cranberry farmers because water management is a big thing.” [Statistics Canada has noted](#), “New Brunswick reported the largest area of cranberries in Atlantic Canada, as well as the third largest area in the country.”

The Canadian Centre for Policy Alternatives' (CCPA) report *Enbridge Pipedreams and Nightmares* notes that Enbridge boasts that a fossil fuel project like the \$5-billion Northern Gateway Pipeline would create 63,000 person-years of employment during its construction phase, and 1,146 full-time jobs once completed. However, CCPA finds these estimates are overblown and that it would only create approximately 1,850 construction jobs per year for three years, and a handful of permanent new jobs once completed. The report points out that between 3 and 34 times the number of direct jobs would be created if the \$5 billion were invested in green jobs and industries.

In fact, only 1% of jobs in Canada are in oil and gas extraction and support activities for mining and oil and gas extraction (226,020 jobs). The industries that produce the most jobs are trade (15%), health care and social assistance (12%), manufacturing (10%), professional, scientific and technical services (8%), construction (7%) and education services (7%) (<http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ40-eng.htm>).

Instead of focusing on possible new fracking jobs, our governments could commit to reducing emissions and encourage a whole different set of jobs including weatherproofing, renewable power projects, public transit, sustainable agriculture and much more.

## **Climate impacts**

Many of the concerns raised above could also fall under the heading of climate impacts of fracking, but we felt it was important to raise this separately. Part of the argument in support of fracking is

often that shale gas is a clean, green, transition fuel. However, [according to Bill McKibbin of 350.org](http://350.org), allowing the industry to move in and build the infrastructure creates incentive for industry to stay for the long-term (increased economic viability) and a disincentive for governments to move subsidies away from fossil fuels and towards renewable energy industries.

Scientific consensus is that climate change is real, humans are causing it, and that three-quarters of all oil reserves must be left in the ground if the planet is to continue sustaining human life. It cannot be argued that this form of fracking is part of a transition to a more just, renewable energy vision. In fact, fracking and other parts of the fossil fuel industry are preventing Canada from reducing its greenhouse gas emissions and doing its fair share to mitigate the global climate crisis.

### **Duty to consult**

In New Brunswick, as in other Maritime provinces and some adjoining regions, the Peace and Friendship Treaties, the domestic and international human rights guaranteed by the Government of Canada, and the Canadian Constitution provide the legal framework for intergovernmental relationships and for jurisdictional mandates. These are the laws of Canada that are most relevant to the “Duty to Consult.”

The Canadian Constitution, Section 35, states: “The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed... [and] For greater certainty... "treaty rights" includes rights that now exist by way of land claims agreements or may be so acquired.” In short, this means these rights must be upheld or honoured throughout Canada.

We are certain that the Commission knows that the “Peace and Friendship” treaties address the entire Maritime region, specifically in this case all of the region known as New Brunswick. Nowhere in this text is there any mention of surrender or ceding of the land or the resources to the Crown. Although a definitive case on title issues is still to come, in the numerous instances where these treaties have been tested in legal proceedings, court decisions are compatible with the statement that these rights have never been surrendered.

“Aboriginal rights” go beyond “treaty rights” as they are deeper and broader. These are the rights specific to Indigenous peoples because they were here first, and they have customs, languages, ways of maintaining a living, and much more, that arise from their original or traditional indigeniety. Under human rights law, they also have the right to have these respected and guaranteed.

It is important to note that the Section 35 text addresses both “existing” rights – ie., those acknowledged by the Government of Canada -- and also those that are not yet fully acknowledged, ie., those that may be affirmed (“acquired”) through negotiation or decisions rendered by courts. Currently there are Indigenous communities in the province developing legal strategies to use the language in the Treaties to protect the resources of the region for future generations.

Case law has expanded the constitutional text, to describe the responsibilities that fall to “The Crown.” For Indigenous peoples, “The Crown” is federal in many instances, but provincial when it comes to natural resource management and other specific matters. Regardless of which level of government is *on deck* in a given situation, the Crown is obliged to demonstrate “honour” in all dealings with Indigenous (or Aboriginal) peoples.

The Honour of the Crown principle is at stake when governments are shaping overarching natural resource management, conservation, or extraction policies – or when considering proposals for industrial development that may have an effect on treaty or Indigenous (aboriginal) rights. Over recent decades both in Canadian case law and in international law, it has been established that the only true way to practice this Honour of the Crown is to ensure that “free, prior and informed consent” (FPIC) is obtained from any Indigenous people whose rights will or may be impacted by policy, resource extraction proposals, etc.

Clearly, upholding the Honour of the Crown is an onerous obligation. In instances where proper protocols have previously been absent, there will be serious consequences for all parties if this duty is simply abandoned. The courts do not look favourably on government neglect of these duties. Sad to say, in the province of New Brunswick, this Honour has not been upheld in regards to shale gas development policies, or for that matter forest policy or many other relevant matters. To make things right, the Commission needs to urge the government of New Brunswick to step back and start over.

### **Fracking must be banned**

Water is a living commons, to be shared, protected, carefully managed and enjoyed by all. Communities not only have a human right to water, but also a responsibility to protect those waters. The United Nations has recognized water and sanitation as a human right, which means that every government must now come up with a plan of action based on the “obligation to protect, respect, and fulfill” this right. Maude Barlow, National Chairperson of the Council of Canadians, points out that the obligation to protect means that a government is obliged to prevent third parties from interfering with the enjoyment of this human right. This would mean, for instance, protecting local communities from pollution and inequitable extraction of water by corporations or governments.

Policies and decision making on water use should be based on recognizing water as a commons, public trust and human right. Indigenous, English, and Acadian communities across New Brunswick and throughout the Atlantic have opposed fracking, and must be part of the decision-making process. We respectfully request the Commission hold public consultation meetings to ensure accessibility for all people in the province.

In summary, the Council of Canadians, our supporters and Chapter members oppose fracking because of its immense water use, its high carbon emissions, its impacts on human health and the environment, the few jobs it creates while also threatening our tourism industry, and the danger it poses to groundwater and local drinking water. We are calling for a country-wide halt on fracking

operations, including here in New Brunswick, and will continue to work with people in communities to achieve this.

**Sincerely,**

Angela Giles, Atlantic regional organizer, The Council of Canadians

Ann Pohl, Chapter chair, Kent County chapter

Carol Ring, Chapter member and lead on shale gas, Saint John chapter

Emma Lui, National water campaigner, The Council of Canadians

Jean-Louis Deveau, Chapter chair, Fredericton chapter

Pamela Ross, Chapter chair, Greater Moncton chapter