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SELECT COMMITTEE REGARDING THE RISKS AND BENEFITS OF HYDRAULIC FRACTURING

Public Hearings: Evidence

Thursday, July 9, 2014 — 11:00 a.m.

Chair: Patti McLeod

**SELECT COMMITTEE
REGARDING THE RISKS AND BENEFITS OF
HYDRAULIC FRACTURING**

Chair: Patti McLeod
Vice-Chair: Lois Moorcroft

Members: Hon. Currie Dixon
Darius Elias
Sandy Silver
Jim Tredger

Clerk to the Committee: Allison Lloyd

Speakers: Barb Shannon
Mark O'Donoghue
Ray Sabo
Roberta Hager
Mikolay Peter
Geri-Lee Buyck

EVIDENCE**Mayo, Yukon****July 9, 2014 — 11:00 a.m.**

Chair (Ms. McLeod): Good morning, everyone. I would like to call to order this hearing of the Yukon Legislative Assembly Select Committee Regarding the Risks and Benefits of Hydraulic Fracturing.

I'm going to start with an introduction of the Committee members. I'm Patti McLeod and I'm the Member of the Legislative Assembly for Watson Lake and the Chair of the Committee.

Mr. Elias: Good morning. My name is Darius Elias and I'm the Member of the Legislative Assembly for north Yukon and the Vuntut Gwitchin and the community of Old Crow. It's a pleasure to be in Mayo again, the heart of the Yukon. I think that it's incredibly important for us as a Committee to listen to your concerns and issues with regard to hydraulic fracture stimulation in our territory and in your region and I look forward to hearing what you have to say this morning.

I encourage everybody to please submit to the Committee. It's incredibly important for us in our future deliberations. So thank you for coming, sharing your day with us here today.

Mr. Tredger: Good morning, my name is Jim Tredger. I'm the MLA for Mayo-Tatchun and I would like to acknowledge that we're on the traditional territory of the Na Cho Nyäk Dun and the Village of Mayo and thank them for their hospitality.

It's a pleasure to be here to hear your opinions and we can take them to the Legislative Assembly. Hydraulic fracturing has struck a nerve in the Yukon. We've been to many communities, and I look forward to your comments. It's important that we get them and get them on record so we can take your opinions forward. Thank you very much for coming out.

Ms. Moorcroft: Good morning, I'm Lois Moorcroft, the MLA for Copperbelt South. I'm the NDP Official Opposition critic for the Department of Justice, Advanced Education and Highways and Public Works. I'm also the Vice-Chair of the select committee. I'm glad to be in Mayo again and acknowledge we're on the traditional territory of Na Cho Nyäk Dun. I would like to thank all of you for coming out this morning and look forward to hearing what you have to say.

Mr. Silver: Hello, I'm Sandy Silver and I'm the MLA for the Klondike and the Leader of the Liberal Party in the Yukon. I would like to thank you for your time here today. Thank you very much.

Chair: I'd also like to introduce Allison Lloyd to my right, who is the Clerk to the Committee. It's her name that's on the contact cards that are at the registration desk. Also Dawn Brown is with us. She's at the registration desk, helping us with logistics and keeping us all organized. I would like to also thank our recording and sound staff.

On May 6, 2013, the Yukon Legislative Assembly adopted Motion No. 433, thereby establishing the Select Committee Regarding the Risks and Benefits of Hydraulic Fracturing. The Committee's purpose, or mandate, is set out in the motion and it includes a number of interconnected responsibilities. The Committee has decided to fulfill its mandate in a three-phase approach.

Firstly, the Committee endeavoured to gain a science-based understanding of the technical, environmental, economic and regulatory aspects of hydraulic fracturing, as well as Yukon's current legislation and regulations relevant to the oil and gas industry. Secondly, the Committee pursued its mandate to facilitate an informed public dialogue for the purpose of sharing information on the potential risks and benefits of hydraulic fracturing. The Committee invited experts to share their knowledge over four days of proceedings, which were open to the public and are now available on our website.

Finally, the third stage of the Committee's work is gathering input from the Yukon public, First Nations, stakeholders and stakeholder groups. This is the purpose of today's hearing, and it's the final hearing in this leg of our travels. We have one more segment that will take place in late September.

After these hearings, the Committee will be in a position to report its findings and recommendations to the Legislative Assembly. A summary of the Committee's activities to date is available at the registration table and it's also available online. All the information the Committee has collected, including presentations from experts on various aspects of hydraulic fracturing, is available on the website.

So the Committee will not be presenting information on the risks and benefits of hydraulic fracturing at this hearing, because this is the time where we want to hear from Yukoners. I do want to be very clear that the Committee is not advocating the practice of hydraulic fracturing in one way or another. We're simply here to hear the views of Yukoners.

If you would like to present your opinion to the Committee, we have asked you to register at the registration desk, but if you haven't and it occurs to you that you might have something you want to share with us, then you'll still have that opportunity. Please note that this hearing is being recorded and transcribed, and everything you say will be on the public record and posted on the Committee's website.

Of course, I want to thank you for joining us today. It's very important that people do take the time to come and make their opinions known. I guess I don't need to tell you again to mute your electronic devices. Now we're going to get started.

I'm going to ask Barb Shannon please to come up to the table.

Ms. Shannon: Good morning. I'm here with a submission from the Mayo District Renewable Resources Council. I work for them as their executive director.

The Mayo District Renewable Resources Council was established in 1993 through the final agreement with the First Nation of Na Cho Nyäk Dun. The council shall be established

as a primary instrument for local renewable resources management in that traditional territorial as set out in a settlement agreement — chapter 16.6.1.

Chapter 16.6.9 further states that each council, acting in the public interest and consistent with this chapter, may make recommendations to the minister, the affected Yukon First Nation, the board and subcommittee on any matter related to conservation of fish and wildlife.

The council has, over the past many months, attended and provided numerous workshops and presentations for education and understanding of the hydraulic fracturing process, footprint and possible residual outcomes. One key point is always raised: Has there been ample research and database information gathered regarding water tables and ground subsurface done throughout the Yukon?

Water is the key to life and the key to the land, its inhabitants, human and otherwise, and the lifestyle which Yukon Territory affords its citizens and visitors.

Mayo District Renewable Resources Council feels very strongly that the hydraulic fracturing process and all its residual accompanying development would severely jeopardize the land and quality of life in the territory for extremely small, if any, benefit. It's a huge risk and gamble with the water, air and environment, fish, wildlife and human populations.

As Yukon Territory citizens and members of a public board charged with making recommendations regarding the conservation of fish and wildlife, the council is very concerned with hydraulic fracturing being done in the territory and recommends that a long-term moratorium be placed on its use. Too much to lose, too little to gain.

Sincerely, Blair Andre, Vice Chair, Mayo District Renewable Resources Council.

Thank you.

Chair: Thank you. Did you have another submission you wish to —

Ms. Shannon: I do have my own personal one, if that's —

Chair: Absolutely. Please carry on.

Ms. Shannon: Get it over with. I have made Yukon Territory home for 18 years, coming from southern B.C. and Alberta respectfully. Yukon is a most special place, with such potential, while still being the wild and wonderful place we all call home. Water is a large part of what makes Yukon what it is and the one sustaining thing on this planet that none of us can live without — not the people, the habitat, not animals, fish or birds.

Water is also a huge non-renewable component in the process of hydraulic fracturing — vast amounts used from surface and groundwater, but none seems to be potable after the fact. I have attended numerous workshops, presentations and researched countless papers and articles on hydraulic fracturing. One returning theme which is completely logical — what do we know about the groundwater in the Yukon? Where do these systems flow? How deep and shallow do they run? What type of subsurface material does it run through?

What effects will this type of disturbance have on the tables and on the permafrost and fault lines in the territory?

Besides the upfront amounts of water being removed from the Earth, what effects and possible spread of polluted water can be expected by the placement of chemical solution in the ground through the fracking process and deep storage at the end of production?

Hydraulic fracturing is a massive environmental game of jeopardy.

The problems surfacing in the south should be a huge red flag for the Yukon. These should be an in-your-face no to fracking sign. Much more groundwork needs to be done by the territory and huge advances in the technical and practical process by industry to ensure 99.9 percent risks are eliminated before Yukon should even remotely consider this.

There are so many alternative methods of power which are just waiting to be explored and set up in the Yukon that we should be ashamed to even consider hydraulic fracturing. No to hydraulic fracturing.

I'd also like to go on record that this hearing in Mayo may seem quiet and not well-attended, but by no means does this signal compliance with any hydraulic fracturing process. The date and time slot conflict greatly with the Peel court case and the average workers of the day.

Thank you for your patience.

Chair: Thank you very much.

Mark O'Donoghue, please, whenever you're ready.

Mr. O'Donoghue: Okay, yeah. Hi. Thanks for coming to the community and, as Barb said, I don't think the turnout today is any indication of interest in this community. We've had the First Nations put on a number of workshops over the last few months and they've been really well-attended. So it's unfortunate it conflicted today.

The other thing I want to say before I start is, this is just — I'm not speaking for any organization or anything. This is just my own personal submission. So, I mean — you've heard tons of information, technical and otherwise on hydraulic fracturing, and there's — you know, it's a discussion that could last days, but I'd just like to concentrate on — just make two fairly brief points.

The first is that, I really think that, from a technical standpoint, the Council of Canadian Academies has essentially done your job. For those people who don't know, the federal Conservative government commissioned a report from the Council of Canadian Academies, and this came out in April of this year. This is — this isn't an environmental group. This is a group of the leading geochemists, hydrologists, engineers in the country.

The report came out in April, and it was really clear. Their main conclusion is there is not enough long-term data, there's not enough technical information to ensure that hydraulic fracturing is safe for our groundwater. That was one of their main decisions, that — their main conclusions. You know, I mean, you've heard lots and lots of testimony from industry scientists; you've heard from environmental groups; you heard otherwise. Each of them is going to come with their

own bias, their own point of view. The oil industry, for years, has hired scientists to say that climate change isn't real either.

When you're making your deliberations, I really urge you to put a greater amount of emphasis on these non-biased sources. These are the leading scientists in the country saying that there's not enough information for this to be safe for our groundwater, and there's a lot of other conclusions they make, too. Basically, the message is there's not enough information; this hasn't happened long enough; there hasn't been good enough monitoring.

So, you know, why we would want to do this in the Yukon, given their conclusions, is beyond me.

So, again, in your deliberations, I just really urge you to put the greatest emphasis on these non-biased sources of information.

My second — I guess the second and final point is that — it's sort of a broader one. The whole method of hydraulic fracturing relies on — you're pumping this fluid down into the deep water — into the deep parts of the Earth, and it's relying — and the substances you're pumping down there are toxins. They're known toxins. We are relying on cement caps in there to keep this staying down there, to keep it from coming back up and mixing with our groundwater.

There's lots of figures floating around for how many of these wells leak, how many of these seals fail. Even the industry has a figure — 10-ish percent; 10 to 20 percent of these leak. That's what we've heard. But regardless of what the figure is, it's being capped by cement. Cement degrades over time. There is seismic activity over time. There's more wells in an area that are drilled over time. There's all these — none of this lasts forever. We know concrete does not last forever, but we're putting toxic substances down in the ground and relying on these cement caps to keep us safe.

So, whether it's five years, whether it's 50 years, whether it's 500 years, eventually those cement caps are going to fail, some of these toxins are going to come back up, and basically we are polluting the aquifers, we're polluting the drinking water for some future generation, even if it's 500 years down the line. In my view, that's completely unethical. It's just not something that we as a society should do and some day we will be rightly cursed for doing that to people.

So that would be my second point. Until the technology has developed, until the long-term research and monitoring has developed enough to ensure that this is safe, I would urge you to consider a moratorium on this practice in the Yukon. We have our leading scientists saying there's not enough information there. We know that we're putting toxins down there that will eventually come back up into our drinking water. It's just not something we should do right now. That's my own view.

That's it.

Chair: Thank you.

Ray Sabo, please.

Mr. Sabo: So my name is Ray Sabo and I represent the Na Cho Nyäk Dun government. I'm the lands and resources manager.

So I'd just like to start off by thanking you for the invite and acknowledging and appreciating the Committee members who recognized that you are on our traditional territorial grounds. I'd also like to say that it's unfortunate that chief and council couldn't be here, as well as many elders and youth and other community members. They are all attending the Peel hearings down in Whitehorse. Also this is kind of an unfortunate time of the year. The middle of the summer is quite busy for most people out on the land. I'm sure they would all be here if they had the opportunity, but other priorities prevail. In the future, we would prefer proper accommodation for proceedings such as these in regard to any, I guess, potential future impacts to our lands and resources.

So I'll just get started. During my short time here, I have seen the passion that the citizens have for the land. You know, almost daily, you see them out exercising the traditional activities that their ancestors did, and they — you know, you get talking to the elders who used to be out on the traplines and they almost tear up when they see a lot of the, I guess, the development that occurs on their traditional territory. And many of them feel that it's kind of spiralled out of control.

So I'd just like to say to you that, you know, that the citizens are deeply concerned with this proposed technique for extracting oil and — or gas, sorry. We did pass a resolution at the last annual general assembly, July 5, 2013, that we are calling on the Yukon government to prohibit any fracking in NND traditional territory, and that we declare our traditional territory to be a frack-free zone. I can give the Clerk a copy of this at the end.

So I just have some questions that our government has identified that we'd like some clarity on through future proceedings, so I'll just get started on them. Is the government going to implement some baseline water quality data, subsurface and surface monitoring in the identified areas with known reserves prior to engagement in hydraulic fracturing? How many years of full data sets have been collected and what would government determine as an adequate data set?

Next, how will the Yukon government regulators ensure that the integrity of the wellheads are not compromised by induced and natural seismic activity while addressing the risk of permafrost thaw surrounding and between well sites? As you know, a lot of the news reports with regard to well sites down in the Lower 48 — you know, they've been failing, leaking methane and CO₂ but, up here, we have the additional parameter of permafrost, so please keep that in mind.

Next, how is government proposing to adequately assess the subsurface water flow in areas of interest to oil and gas companies? As you may be aware, hydrogeologists have only been able to scratch the surface in terms of their understanding to subsurface water flows in the Lower 48. We have another large limiting factor here in the Yukon with respect to the continuous and discontinuous permafrost. Does the Yukon government have an idea as to how they would approach this research? Do they have the capacity to do so?

Next, what sort of mitigations is the government proposing to implement regarding the disturbance to permafrost? So they — that's a bit redundant, but feeds into it. How will the Yukon government regulators ensure that waste-water retaining ponds are sufficiently contained and do not seep back into subsurface aquifers?

I just wanted to finally bring to your attention, you know, the recent news releases with regard to waste-water leaks within well sites in Oklahoma — basically, as I mentioned in the previous question, the issues around induced seismic activity, as well as naturally occurring activity, along faults. One of the big concerns is, when the integrity of the well casing is compromised by this activity, there's no real clear understanding as to how the waste water or gases will enter and migrate through the permeable geological forms within the bedrock, as well as above, and the migration of these contaminants in unconfined aquifers.

Also there's a lot of talk about dealing with waste water and how that will be done, and after the recycling of the usable water has reached a point where it can't be used any more, they've been deeming that as waste water that needs to be re-injected back into the well site, into the wells. But this injection adds a significant amount of weight to the ground, which could additionally fracture the well casing that we have travelling deep into underneath the bedrock.

So, yeah, those are my comments and, yeah, I just — I guess from my own perspective, for the record, there is enough activity within the Yukon at this time. You know, we have mining companies sprouting up all over the place, and the economics of searching for oil and gas within the Yukon — gas specifically — aren't there right now. We don't have the infrastructure as well as the price that we could sell the gas at. As you are all well-aware, the price of natural gas is quite low in the States because they have a surplus, and this is an opportune time to sit down and really look at this technique and see, is this something that will spiral out of control with regard to environmental and social impacts? Or is this something that could be implemented further down the road, let's say in 50 years, 30 years, 100 years, or never? Who knows, right?

So with that being said, you know, I would, you know, request a moratorium on this process until there is sufficient data to validate this process, as well as just asking you to take that into consideration, that the price of natural gas and the availability of natural gas in the Lower 48 is such that this is — this wouldn't be economic for the Yukon at all.

So, thank you.

Chair: Thank you very much.

Roberta Hager, please.

Ms. Hager: Hello, my name is Roberta Hager and I'm also from the First Nation of Na Cho Nyäk Dun, so I'm a citizen of this traditional territory. As a First Nation person, I have some concerns with regard to the caribou, over their wintering habitat in the Eagle Plains area. As you know, we are part of the Gwich'in tribal — or Gwich'in people. Some of us like caribou and some of us hunt up the Dempster to have

sustainable lifestyle, to have traditional foods. How will the Yukon government regulate the industry to protect this area and others throughout the Yukon? Because of our wildlife, like the caribou — we want those to be protected.

My next question is: What new regulations will be drafted with regard to waste-water disposal and protection of water quality, fish and wildlife values and their habitat? Will First Nation governments have the ability to provide valuable input into this process?

Also, will Yukon First Nation governments be allowed to fully participate in any future developments on legislation and regulations with regard to oil and gas activity in their prospective traditional territories? As you are aware, the First Nation final agreements have clauses which state that First Nations need to be involved in non-renewable resource extractions throughout the territory. It is required to comply with the spirit and intent of the agreements and other relevant constitutional treaties.

On a personal note, I'm also a grandmother, and I would like to see the protection of our fish and wildlife and for the water of our future generations, because I would like for my grandchildren and great grandchildren to enjoy the lifestyle that we have lived forever, as my grandmother and my grandfather have lived. As you know, mining has impacted our people in our traditional territory where we can't hunt and trap like we used to. So a lot of the animals are gone and, as you can see, mining has also contaminated some fish and animals for our peoples, so sometimes we can't eat wildlife. Lord only knows what happens to the plants and the flowers when waste water goes back on to the land.

So I would like the Committee to consider the future of our people's food that needs to be protected and, most important, is the water for our children to drink.

Mahsi' cho.

Chair: Thank you. Does any other person wish to address the Committee at this time?

The Committee is then going to recess.

Unidentified Speaker: (inaudible)

Chair: Sorry. Please, come ahead. State your name for the record, please.

Mr. Peter: Mikolay Peter. I'm an NND citizen, born and raised in Mayo. I guess you guys got all the questions that you needed to hear from everybody already, so I'll just ask a different type of question here. Yukon government comes to us whenever this kind of issue comes up, and when they're building a puzzle of Yukon resource infrastructure. You know, they should have to present all that stuff to us as Yukoners, rather than piece by piece.

I'm certain they have all the pieces already; they just don't want to show us. They should have to do that, because that's building a plan and that's subject to YESAA. So, that's all.

Chair: Thank you very much. I would like to assure the people of Mayo that this process is not considered a consultation, especially a government-to-government consultation. This is merely a select committee out to seek the

opinions of Yukoners. So I just want you to rest assured at that, that there may be an opportunity, depending on where the government goes, for consultation in the future.

So the Committee will recess for 15 minutes. We're going to take a little break and maybe after some chatting, some other folks may wish to present to the Committee, or some people may come over the lunch hour.

So, 15 minutes — thank you, and help yourself to coffee and snacks, please.

Recess

Chair: Hello folks. We're going to get started again please.

We have one new presenter. Geri-Lee Buyck, please.

Ms. Buyck: I'm just going to make this short and sweet because I'm not really prepared for it. My name is Geri-Lee Buyck. I'm a youth councillor with Na Cho Nyäk Dun. As a body in the government and also as an NND citizen, I want to put it straight out and clear on behalf of the youth that we do not agree with fracking at all at this point in time in the Yukon and on our traditional territory. There is not enough data and research, I believe, to ensure the well-being of our people and of our land and — of not just ours as First Nation people, but the Yukon. I just wanted to make that clear, and I'm happy to.

It's unfortunate that the dates conflicted with something big that is happening down in Whitehorse. It's too bad as well that you guys couldn't hear what our elders and the rest of chief and council had to say, because I'm sure that they would much have loved to be here as well, to be on record.

Also, I wanted to say that I agree and stand by what those people here have had to say — especially Barb and Ray and Mark and Roberta. Those are the ones I got to hear — catch the end of it. Thank you.

Thank you very much.

Chair: Thank you.

Now we know this isn't the perfect format for some people, but I just want to let everyone know that you can go on-line to our website. There is a comment form. We will take your comments in any format. So if you want to send an e-mail, write a letter, put it in the post office, any way you want. We will take comments up to the end of September for sure, because that is when we will be wrapping up our community visits. Our mandate, of course, is to produce a report or a set of recommendations to the government by the end of the fall sitting, which we presume will be sometime in mid-December.

Does any other person wish to present to the Committee?

Well, I want to thank the people of Mayo for coming out. We understand that there has been a conflict of schedules and we apologize. We do thank you for coming out and sharing your thoughts and opinions with us today. Thank you very much.

The Committee adjourned at 12:23 p.m.