CAN FRACKING BE DONE IN A SUSTAINABLE WAY?

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FORUM: BLOMIDON GOLF & COUNTRY CLUB CORNER BROOK, NL FEBRUARY 11, 2015

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INTRODUCTION AND ACKNOWLEDGEMENTS

This report is the result of a day-long forum that took place in Corner Brook on February 11th, 2015. The Forum was organized by Memorial University of Newfoundland, specifically by the Leslie Harris Centre of Regional Policy and Development (based on the St. John's Campus) and the Environmental Policy Institute ("EPI", based on the Grenfell Campus in Corner Brook). The mandates of these two units are included in appendix.

The author wishes to thank Dr. Antony Card, Associate Vice-President (Research) at the Grenfell Campus for hosting the event. As well, thanks are due to Dr. Michael Van Zyll de Yong, Director of the EPI, and Dr. Paul Foley, Assistant Professor in the EPI, for their partnership in organizing the event.

The forum was held at the Blomidon Golf & Country Club in Corner Brook, and was preceded by a public lecture held at the Corner Brook Civic Centre the previous evening. The lecture featured presentations by Dr. Michael Quinn, the Talisman Energy Chair and Director of the Institute for Environmental Sustainability at Mount Royal University in Calgary, and Dr. Stephen Tomblin, Professor of Political Science at the St. John's Campus of Memorial University. Dr. Quinn leads a team of twenty scholars (including Dr. Tomblin) in a study that looks at the impacts of fracking on landscapes and watersheds, and that is funded by Environment Canada under the auspices of the Canadian Water Network. Both scholars participated in the day-long forum the following day. The author is grateful for the participation of these two eminent scholars at the Forum.

The forum featured short presentations by three local leaders engaged in the discussion on fracking. Dean Ball is the Mayor of Deer Lake, a community that would be impacted by any fracking activity in Western Newfoundland. Anne Marceau is a member of the Newfoundland and Labrador Fracking Awareness Network, a grass-roots organization that monitors fracking activity in this region. And Chris Noseworthy is the President of the Greater Corner Brook Board of Trade. All three engaged in a discussion with the audience after their presentations. The author congratulates these panelists for their courage in taking part in an event that discussed a very contentious issue in Western Newfoundland.

This report is made possible because of the dedicated work of the volunteer note-takers who had been assigned to each discussion group. Recording discussions as animated, dynamic and complex as those that took place at the forum is a rare talent, and the author sincerely thanks the note-takers for their excellent work: Gary Catano, Camellia Ibrahim, Mary McCormack, Dylan Odd, Ayoola Odeyemi and Jillian Smith.

It took nearly a year of preparation to organize this event. The author wishes to thank his colleagues at the Harris Centre for their unstinting dedication to making the event the success that it became: Dr. Rob Greenwood, Executive Director of the Harris Centre and the Office of Public Engagement; Bojan Furst, Manager of Knowledge Mobilization; Morgan Murray, Public Policy Intern; Diane Keough, Communications Coordinator; Jennifer McVeigh, Administrative Assistant; and the rest of the team. Special thanks are also extended to Marion McCahon of the Provincial Government's Office of Public Engagement for help with a survey.

Finally, the event was the success that it became because of the involvement of the participants. Seventy (70) people attended the public forum on the evening of February 10th and another 143 watched the live webcast. For the forum, fifty (50) people gave up their day to participate in the discussions. The organizing committee for this event wants to sincerely thank everyone who participated.

CONTEXT FOR THE FORUM

The use of fracking to recover oil and gas reserves is contentious, not just in Newfoundland and Labrador, but throughout the world. In 2013, Memorial University's Harris Centre had identified hydraulic fracturing ("fracking") as an important issue of public policy in this province, especially on the West Coast of Newfoundland. A number of citizens' groups had arisen in the region as a result of proposals to undertake fracking developments, and the local media had devoted a significant amount of coverage to the issue.

The Harris Centre's mandate includes the organization of forums where important issues of public policy can be discussed in an informed, non-partisan and respectful manner. Since its inception in 2004, the Centre has organized events dealing with such issues as the fishery, education, regional development, transportation and oil & gas royalty regimes. For its part, the EPI's mandate includes facilitating debate on provincial environmental policy issues within the environmental policy community as well as the broader public.

In February 2014, the Harris Centre organized a "Memorial Presents" public forum in Corner Brook, featuring Dr. Maurice Dusseault of the University of Waterloo and Dr. Lesley James, Memorial University's Chevron Chair in Petroleum Engineering. The intent of this forum was to provide citizens with factual information about fracking from an engineering perspective. This event was covered extensively by the media, in both Western Newfoundland and more broadly throughout the province, and generated a large number of comments on discussion boards, both in favour of fracking and against. Given the contentious nature of the discussion at this forum, the Harris Centre promised to return to Western Newfoundland to undertake a second public forum and perhaps a more interactive workshop.

Following this 2014 public forum, the Harris Centre contacted the Grenfell Campus' Environmental Policy Institute (EPI) to create a collaborative approach for this follow-up forum. The two units agreed to organize this forum for some time in February 2015. The event was to include another "Memorial Presents" public forum, eventually scheduled for the evening of February 10th, as well as a day-long workshop to be held the following day. These two events were promoted extensively to the Federal and Provincial governments, to municipal governments on the West Coast of the Island, to non-governmental organizations representing business and ecological groups, to the media, and to the general public.

In the meantime, the Government of Newfoundland and Labrador, in response to citizens' concerns about fracking, created the Fracking Review Panel to hold hearings on the issue. This panel, appointed by the Minister of Natural Resources, was to be chaired by Dr. Ray Gosine, Associate Vice-President (Research) at Memorial University, and was to include Dr. Dusseault as well as three other experts. Michael Clair of the Harris Centre met with Dr. Gosine on January 8th to ensure that the Centre's initiative did not conflict with the Panel's mandate and was assured that it did not. Dr. Gosine encouraged the Harris Centre to continue with its planned event.

THE PROGRAM

The use of hydraulic fracturing ("fracking") to recover oil and gas is generating a great deal of discussion in Western Newfoundland. This event was meant to bring together local residents with various perspectives about fracking in order to discuss the issue in an informed, non-partisan and respectful manner.

This one-day workshop entitled "Can Fracking be Done in a Sustainable Way?" took place on Wednesday, February 11, 2015, at the Blomidon Golf & Country Club in Corner Brook, Newfoundland and Labrador. The event was open to representatives of organizations from civil society, academia and all levels of government, as well as to individual citizens. It was facilitated by Memorial University's Leslie Harris Centre of Regional Policy and Development.

A "Memorial Presents" public forum was held in the evening before the workshop entitled "What are the Environmental Risks of Fracking on Landscapes and Watersheds?" Dr. Michael Quinn, Talisman Energy Chair and Director of the Institute for Environmental Sustainability at Mount Royal University in Calgary, presented a general overview of hydraulic fracturing and horizontal drilling for "tight" (i.e., shale) oil and gas, and identified the potential risks for water contamination and other environmental consequences. The presentation summarized what is currently known about the environmental risks associated with fracking and where there is need for further research. Dr. Stephen Tomblin, professor in the Department of Political Science at Memorial University, explored the key political and policy issues surrounding shale gas production and water management, focusing on what kind of tensions exist and what kinds of processes are required or necessary to make sure that both scientific and lay expertise have a voice in decision-making. The video of this session has been archived on the Harris Centre's website at http://www.mun.ca/harriscentre/policy/memorialpresents/2015b/.

The agenda for the workshop on February 11th was as follows:

- Welcome and introductions
 - Purpose of the Forum
 - "Rules of Engagement"
- Panel discussion featuring three local leaders
- Two breakout group discussions with report-back sessions
- Next steps and adjournment

Each of these items is addressed in a separate section of this report.

The report is written as a synthesis of the notes taken by participants in each of the breakout groups.

WELCOME AND INTRODUCTIONS

The Facilitator welcomed the participants and invited them to introduce themselves to the group. (A list of the participants is included in appendix.) He then outlined the purpose of the meeting:

- 1. To gain a better understanding of the complex issues surrounding fracking on the West Coast of Newfoundland: its potential socio-economic benefits and the potential risks to personal health, the environment, infrastructure, etc.
- 2. To empower local residents to assume greater local control over decisions related to development and conservation in Western Newfoundland.
- 3. To identify important knowledge gaps and possible research opportunities: what is it that we still need to know in order to be able to make the best possible decisions about fracking in Western Newfoundland?
- 4. To create an opportunity for reflection about the region's collective attitude towards fracking.
- 5. To create an opportunity for dialogue not debate on the topic of fracking. Debating implies that we argue the merits of the case; dialogue is more a discussion about shared values and how to achieve a solution that meets the interests of all stakeholders.
- 6. To determine whether there is a need/desire to continue this process.
- 7. To produce a "what we heard" report that captures the major points raised during the Forum.

When discussing an issue as contentious as fracking, it is important to follow specific rules:

- To be at this meeting implies that you are committed to taking a constructive approach to the issue, and to seeking a consensus solution.
- All perspectives about fracking are welcome.
- When responding to a comment, make sure to address the issue, and not to attack the person making the comment.
- Listen respectfully and wait your turn to speak.
- Keep your comments short and to the point.
- When speaking during the plenary discussions, address the moderator.

In the Forum, the Facilitator's role was to:

- Maintain an ordered list of persons who wish to address the audience.
- Recognize the person who has the floor.
- Ensure speakers are respectful and on-topic.
- Give everyone an equal chance to speak, given the overall time constraint of the session.
- And ensure the session begins and ends on time.

Discussion

Some participants were uncomfortable entering into a discussion as to whether fracking could be done sustainably. The very title of the forum, "Can Fracking Be Done in a Sustainable Way?" implies that fracking is

the "default option" for the region's future, and that the onus is on those who are opposed to fracking to prove their case. It may be more useful to step back and ask the broader question, "what do we need to do to ensure that Western Newfoundland remains sustainable into the long-term future, in terms of its economy, society and environment?" Is there even a need to frack? Are there alternatives to fracking? And what's the rush? The resource isn't going anywhere.

Fracking cannot and should not be debated on its own; it needs to be put in the larger framework of an industrial policy or sustainability strategy for the province, or at least for the West Coast. The following questions need to be asked:

- 1. What should be the energy policy of Newfoundland and Labrador?
- 2. What should be the drivers of economic development in Western NL? What are alternative energy sources, other than fossil fuels?
- 3. How can we work towards a sustainable future for Western NL?

PRESENTATIONS FROM LOCAL LEADERS

CHRIS NOSEWORTHY, PRESIDENT OF THE GREATER CORNER BROOK BOARD OF TRADE

The Greater Corner Brook Board of Trade represents the business community (including the oil industry) of the most populous region of Western Newfoundland. Offshore oil and gas revenues are contributing 30% of the Provincial Government's revenues, permitting the construction of schools, hospitals, etc. As well, rural areas are facing a demographic crisis. It can be argued that the greatest employer in Western Newfoundland is Fort McMurray, Alberta; that is, many of our residents have to commute long distances and be away for extended periods away from home, creating all sorts of social problems here. While Western Newfoundland does not have a tradition of fracking (nor of drilling for conventional oil and gas), fracking is being done successfully and sustainably in Alberta, so there are successful models to follow elsewhere. However, it is up to the residents of the region to determine if fracking should be allowed. There needs to be a discussion about the acceptable limit on pollution in this province, and part of the debate is a choice between rural decline and fracking activity. Mr. Noseworthy is in favour of a strong regulatory environment that reminds us that "we", as a province, don't frack; rather, fracking is done by private entities and we must decide whether the risks are worth the benefit.

ANNE MARCEAU, MEMBER OF THE NEWFOUNDLAND AND LABRADOR FRACKING AWARENESS NETWORK

Protecting the environment relies on people's active engagement with it through recreation and tourism. The investment that tourism attracts contributes to mental and physical health and gives the region a competitive advantage; it makes it a more attractive region to visit and to live in. Fracking is not the same as conventional drilling, and the geology of Alberta is much different from that of Western Newfoundland. Fracking is a high-risk venture and a gamble for business, health and the environment. The costs of fracking outweigh any benefits that may be seen in the region and the negative externalities are too important. If we take a "full life-cycle" perspective on fracking and ask whether it is sustainable (i.e., does it conserve the ecological balance and/or is it sustainable over time?), then fracking is clearly not sustainable. Important unanswered questions remain, such as where will waste go and who will pay for the infrastructure? Where will the millions of gallons of water needed for fracking come from? Will crime rates go up with extractive industries because of transient workers? Who will pay for the increased health costs and policing? Current discussion over-estimate the benefits: relatively few local people are hired, since the industry is populated by specialized work crews who are brought in from outside. And who will monitor abandoned wells, clean them up when necessary and pay for the cleanup?

DEAN BALL, MAYOR, TOWN OF DEER LAKE

Small towns have small budgets and they struggle to get by. They are, of course, interested in economic development, but not at any cost. They are often faced with difficult decisions, including some that may affect the community's very existence. Town Councils must also deal with the NIMBY issue; some residents may not want a development "in their back yard", even though the development might benefit the community as a whole. It's important to keep an open mind and to focus on factual information when discussing the future of

the oil industry in the province. Before a decision is made on the fate of fracking, there should also be other solutions for economic development in rural Newfoundland and Labrador on the table; it shouldn't be "fracking or nothing". It comes down to risk management; people might be more willing to accept more risk if there are no other viable alternatives available to them.

COMMENTS AND QUESTIONS

- Several participants conveyed a sense of frustration at what voices have and have not been considered in the discussion on fracking in Western Newfoundland thus far. One respondent shared the belief that the fracking process is a moral and cultural issue, that the earth is not a resource to be exploited, that the fate of future generations has not been part of the discussion; in many cases, the First Nations' perspective has not been considered in the debate.
- Another contributor voiced the opinion that the monetary costs of fracking are too high and that we should be looking for alternatives. The opinion exists that the issue is getting pushed on communities, where fracking is framed as the "be-all-and-end-all" of economic sustainability; citizens are being pushed by the government and the Board of Trade even though there is no oil yet and other alternatives to regional economic development have not been explored.
- More generally, there was a sense of distrust in the process of how decisions around fracking are being made, and in particular that the government has weakened the rights of citizens to participate in the process and increased the power of corporations to police themselves. The example was given of the gold mine near Rose Blanche: the tailings pond there breached and pollutants were released into the environment, creating impacts on the fishery in particular. Public funding had to be spent to clean up the mess.
- One respondent emphasized the importance of looking carefully at fracking, not only because it is an important public policy issue, but because it raises questions about how we tackle issues collectively as communities large and small. As well, some communities are being split over this issue.
- Government should be creating supportive environments for "green energy" development. Right now, it is the contrary; recent legislation actually makes it illegal for anyone but Nalcor to contribute electrical energy to the provincial grid.
- Some proponents of fracking promote shale gas as a "low-carbon fuel", especially compared with coal or Bunker-C fuel. However, the United Nations Energy Program has stated that shale oil and gas are a liability in reaching climate change targets and are actually delaying the transition to a low-carbon economy.
- Could fracking be approached as a pilot project? That is, instead of giving a blanket approval to all comers, why not commission Nalcor with drilling ten or twenty wells, and then evaluating the results?

BREAKOUT SESSION 1

Discussions during Breakout Session 1 were guided by two questions. The first looked at knowledge gaps that exist about fracking. Are there any major knowledge gaps and, if yes, what other information would we like to have in order to make an informed decision about whether or not to allow fracking in Western Newfoundland? And what is the responsibility of the various actors in filling any knowledge gaps?

QUESTION 1: WHAT ARE THE MAJOR AREAS OF UNCERTAINTY THAT WE STILL HAVE ABOUT FRACKING?

- The study undertaken by the Canadian Society of Academies¹ and the Report of the Nova Scotia Independent Review Panel on Hydraulic Fracturing² pointed to several major knowledge gaps, as well as to the absence of baseline studies in affected regions.
- One specific knowledge gap that affects plans for Western Newfoundland is the absence of information about onshore-to-offshore drilling. There are very few places in the world where such a practice is being used. This must involve unique and complex issues.
- Why here, and why now? Is fracking a real concern right now? And who is the driving force? If it isn't so urgent, then why are these conversations occurring now? It's possible that the worry about fracking may be for nothing if there's no plan to move ahead with it and if no one is actually interested in it. Oil companies are not publicly announcing their intentions, but working behind the scenes. Black Spruce Exploration probably holds a major proportion of the available Exploration Licences in Western Newfoundland (both on land and at sea) and stated at the meeting that it doesn't plan on fracking on any of its lands; any proposed drilling would be conventional in nature.
- Fracking's role in regional development: It is said that "we need to frack to help the economy". But would fracking even satisfy that? Is it a viable form of economic development in our context? Who would bear the costs and who would benefit? Alternative economic drivers in the area include the fishery, aquaculture and tourism. The conversation needs to include a discussion of all the alternatives. There is a need for a visioning exercise about what kind of region we want to live in; sustainable economic development and sustainable energy generation need to be part of this exercise. The discussion should be about building a diversified economy on the West Coast that is long-term.
- Fracking is not a silver bullet: Fracking will not solve our social problems like an aging populations and or rural depopulation. Fracking is not the "be-all-and-end-all" to problems like labor shortages and outmigration.
- Environment and tourism: When the Board of Trade spoke on this topic in the past, it always said that we had to frack because the population on the West Coast is continually declining and only fracking will sustain the region. What it omits from the discussions is how the area could become unlivable in a post-fracked era. No one is going to want to live here. It may also impact reputation of the area and decrease tourism: consider Gros Morne's "pristine wilderness"; if you change the perception of the area in people's minds, it will become far less attractive.

http://www.scienceadvice.ca/en/assessments/completed/shale-gas.aspx

 $[\]underline{http://energy.novascotia.ca/sites/default/files/Report\%20of\%20the\%20Nova\%20Scotia\%20Independent\%20Panel \\ \underline{\%20on\%20Hydraulic\%20Fracturing.pdf}$

- Need for fossil fuels: We can't forget that fossil fuels play an important role in many domains in this
 province, including food security. Our food system is dependent on the fossil fuels to get food to our
 tables: ferries, trucks, etc.
- Complex geology of the region: The geologic feature that draws tourists to Western Newfoundland the Tableland Mountains is the surface representation of underground forces that have warped the geological layers, upending, folding and crushing them. The product is a geological melange, not the nice classical layers of rock as shown in most depictions of the fracking environment. The geologic complexities and intensely deformed strata means that there are many faults throughout the prospective zones. This would cause challenges and risks with the fracking process.
- Being proactive: The Greater Corner Brook Board of Trade and the Town of Deer Lake say, "we need to
 look at what's being presented to us." But they need to have an underlying ethic, and not just approve a
 proposal because it's the only one they have. This response is too passive and reactive.
- **Impact on industries:** how do you evaluate how one potential industry is going to affect existing industries? What are the possible consequences of fracking on existing infrastructure and industries (e.g., tourism, fishery, forestry)?
- **Data:** There is a need for baseline data on water standards, air quality, population health, and more before we proceed with any more industrial transformation in the area.
- Regulation: Questions remain about the regulatory regime. Who would be on the hook for paying for remediation? Do we have the monitoring capacity? Regulations must be approved and enforced by government.
- Political and corporate accountability: Time scales around political cycles and resource extraction cycles
 need to be considered. Political and corporate accountability issues such as turnover in elected officials
 pose difficulties.

QUESTION 2: WHAT ARE THE ROLES OF THE FOLLOWING IN FILLING THE KNOWLEDGE GAPS? WHAT KIND OF ASSISTANCE/LEADERSHIP WOULD YOU LOOK FOR FROM THEM TO GET YOUR QUESTIONS ANSWERED? HOW CREDIBLE DO YOU CONSIDER THEM TO BE?

GOV'T OF CANADA

Gov't of NL

MUNICIPAL GOV'TS

MUN

DRILLING COMPANIES

CITIZENS' GROUPS

OTHERS (OTHER PROVINCES, FIRST NATIONS GROUPS)

- There is actually a high level of knowledge about fracking in Western Newfoundland; some people have been researching this issue for several years. It is therefore important, when conducting research on this topic, to involve the populace in community-based research and to clearly communicate the findings of this research.
- **Provincial Government**: The Provincial Government seems to disparage what local citizens know and what they're talking about. The Provincial Government needs to answer the "why here, why now?" question. It's hard to look at the Government as leaders because they're stuck in an "oil mindset." There's also concern that when a politician's term is over, they have already negotiated well-paid jobs in the oil industry, and thus have a vested interest in supporting fracking. How can we see them as credible? The Provincial Government does not have a lot of credibility as far as leadership goes.

- Federal Government: We need a standardized way of relating benefits and risks at the Federal level. We
 need more and better regulations in line with the current issues and concerns, not just how to handle a spill,
 but on integrating social concerns and the current issues being dealt with through legislative bodies. The
 Federal Government doesn't want to step on the Province's toes, however, and therefore it's not getting
 done.
- Memorial University and researchers: Geologists have credibility, but how many reports does the public get to see? Both levels of governments have cut back on funding for science and have diminished their ability to communicate scientific findings to the public by destroying evidence or imposing gag orders on their scientists, etc. Memorial University is largely oil-funded (and the Harris Centre as well, by extension). The role of the University should not just be about answering areas of uncertainty about fracking. They should be taking on bigger social and technological questions. Their advisory boards are largely industry, so industry is shaping their questions, framing their agenda and focus. Let's start looking beyond fossil fuels. The University can be helpful in connecting resources (e.g., across-campuses) and can provide comparative, general knowledge, shed light on what's happening elsewhere. They are generally empirically rigorous and critical and can bring together networks of knowledge. University institutions are not always good at disseminating knowledge, however, which is where the media can/should play a role in disseminating that information in accessible ways, being conduits of the conversations, and bringing topics back to communities.
- **Drilling companies:** Distrust exists towards drilling companies because they have a reputation of putting profits before people or the environment. There is concern that drilling companies evade questions about risks, the real plans for exploiting the resources, and the costs that tax-payers will have to pay in the immediate and long-term. They evade questions about the disposal of waste-water, for example. There are problems with the validity of assessments done by consultants hired by the oil & gas industry, and because of this, a sense of distrust towards drilling companies. Concern was expressed about the way environmental assessments are conducted: if done by government (which is pro-fracking), conclusions cannot have credibility; if done by private companies, the approval to proceed is almost 100%; if consultants recommended against a proposed project, they would not be hired to do more assessments of environmental impacts.
- **External Review Panel:** There are questions of credibility, balance and knowledge gaps (for example, there are no experts on the panel on health, environment or social impacts).
- **First Nations'** voices are missing from discussion, their perspective on fracking is absent. It's complicated because people in this province are still coming to grips with their ancestry, the history of racism, etc. In Port au Port, bands seem to be quietly anti-fracking (not as visibly present and outspoken as Aboriginal groups in NB).³

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The Qalipu Nation had been invited to participate in the Forum, including as panelists, but they declined to do so. However, some members of the Qalipu Nation did attend the forum as interested citizens.

BREAKOUT SESSION 2

Discussions during Breakout Session 2 were guided by two questions. The first dealt with the selection of a process that would engage the public, while the second dealt with how the various authorities could engage more of the public in the decision-making process.

QUESTION 1. WHAT PROCESS SHOULD BE IN PLACE FOR THE PEOPLE OF THIS REGION TO BE FULLY ENGAGED IN THE DECISION-MAKING PROCESS? WHAT PROCESS WOULD BE FAIR AND WHERE EVERYONE'S VOICE WOULD BE HEARD?

Need for a bigger-picture process:

- There is a sense that the issue of fracking should be embedded in a larger ecosystem/land use-based policy/planning process. Some suggestions on ways forward include holding a referendum, making fracking a major political issue; making politicians accountable; attaining more truthful information by industry; using Memorial University for peer-reviewed research; and/or encouraging the media to undertake more investigative journalism.
- Towns and boards of trade need an eco-system management-based plan in place before they look at industries like fracking. How would fracking fit into such a plan?
- The West Coast needs a strategy for how we are going to use land and water a holistic view of where we want to find ourselves in the future. The process should include cross-cutting issues such as health and environment. We can't continue looking at one project at a time (e.g., fracking) without this larger strategic development process.
- We need to have a long-term vision as a society and a region as to how we'll go about dealing with resource development, and a broader conversation about the future of energy policy in the province. The Harris Centre and the EPI should partner to facilitate this visioning exercise. Make sure to involve all stakeholders and perspectives.

Consulting the public:

- The consensus within the room was that the forum participants were a good representation of the opinions of the population of Western Newfoundland. Most communities in the region are well aware of such issues as climate change, fracking, regional development, etc.
- Discussions need to be non-confrontational and balanced. People resent consultations that are done when the policy has already been written and passed. The public needs to be meaningfully engaged and part of the planning process.
- The public should not be controlled or manipulated, as when the scope of participation is narrowed or when they are being confined to externally predefined categories.
- The recommendations of the Review Panel on Fracking should be influenced or voted on by the public as opposed to implemented unilaterally by the government.
- Something this complicated needs to be examined using multiple processes, because different people are comfortable with different approaches (e.g., online survey, keypad polling, meeting speakers face-to-face, etc.). This will not work as a one-size-fits-all process. It requires a variety of ways for people to plug in, offer input and decide how or if fracking happens.

- There may be a need to educate people as part of consulting them. As well, consultations need to be properly planned so as not to cause "consultation fatigue".
- Newfoundland and Labrador should adopt the Nova Scotia model: that province stated that their review process was part of a larger conversation and would not recommend a specific course of action.
- It was suggested that a regional organization be created with a mandate to bring people together at appropriate times, so that when an issue arises, this organization can be convened and engage the public in meaningful public discourse.

• Getting the facts out:

- We need to ensure that the factual information gets out to as many people as possible in order to address a serious lack of information on both sides. It is extremely important to have all the facts before moving forward and to determine how an issue is going to be translated into public policy.
- We need a public forum where people can ask an expert something like the Harris Centre's Yaffle. There could be several categories (e.g., social effects, health and safety), with experts in each field.

Whose voices?

- Local people are going bear the brunt of any negative impacts. However, in public processes "not everyone's opinion is valid" if they are not informed (i.e., ideologically balanced and scientifically factual).
- What about people living in direct areas of fracking? How much influence should the people who are living in these areas have towards the decisions being made? Should they have more of a say than others in the province?
- All of these issues are ultimately local issues; at the end of the day this is going to be in someone's community.
- Do these communities have the social or educational capacity to adequately engage in these
 processes? For instance, a participant mentioned that there are 3 mayors within the province who
 are functionally illiterate, a fact that although not problematic on its own, could pose challenges as
 rural municipalities are charged with engaging with and making decisions with multinational oil
 corporations.

• The Government-appointed Fracking Review Panel:

- People are upset by the lack of public consultation about the Review Panel and how its members were selected.
- The areas of environment, health and social sciences are not represented on the panel, nor is input from women, Aboriginal peoples and those with expertise in the social sciences; therefore, the panel is missing important inputs.
- Other provinces and countries have done very thorough inclusive reviews and have banned fracking because too little is yet known now about its long-term impact. Given that so many concerns are known today about fracking, the government could pronounce a moratorium without further ado.

QUESTION 2: WHAT ROLES WOULD YOU EXPECT THE FOLLOWING TO PLAY IN THE DECISION-MAKING PROCESS?

- Gov't of Canada
- Gov't of NL
- MUNICIPAL GOV'TS
- MUN

- DRILLING COMPANIES
- CITIZENS' GROUPS
- OTHERS (OTHER PROVINCES, FIRST NATIONS GROUPS)

Government of Canada:

- There is a perception that the Government of Canada is presently engaged in a process of deregulation, limiting access to information, silencing scientific research and destroying existing data.
- "Science" needs to be more inclusive and broadly defined to include population health, social science, biodiversity, etc.
- The Federal Government should accept and implement the recommendations put forward by the Council of Canadian Academies (related to water, soil, etc.). it is on the basis of information like this that decisions should be made by the Federal and Provincial governments.

Government of Newfoundland and Labrador:

- Newfoundland and Labrador and Canada have jointly reviewed the processes of onshore-to-offshore fracking. The province should be reviewing this process independently; there are too many conflicting interests.
- The Provincial Government should acknowledge that fracking has been banned in Canadian provinces and in other countries in the world. Governments should be looking at other jurisdictions and draw from their experiences. Places where fracking is happening now, like in the Bakken formations of North Dakota, could be used as potential case studies for studying the social effects of fracking in Western Newfoundland.
- There is an expectation that the Provincial Government create an independent and unbiased panel to regulate environmental health.
- A referendum on fracking might be a good way to engage more people on the issue, undertaken in those areas that have shale gas or oil deposits.
- With upcoming elections, fracking should be at the forefront of political debate in communities in every district. It incorporates many of the same issues from southern Newfoundland to northern Labrador. We should demand that each party have a position on fracking in their platform.
- Politicians should be held accountable for their decisions. There should be a platform from every
 political party describing their stance on fracking. Bring back open debates which may help with
 accountability of politicians.
- Part of process of making politicians accountable is that the citizenry is responsible for holding them
 accountable, for bringing up the issue. Even if it's a region of the province where fracking isn't being
 proposed, the larger question of a sustainable energy plan needs to be brought up, as well as the larger
 questions of energy systems.

- There is a need for more public deliberations and public meetings with the Fracking Review Panel in the room. How do we get them at the table?
- The Provincial Government should be spear-heading the process that is taking place today. It should be collaborating with citizens and compiling the information, resulting in a final report or website.

Municipal Governments:

- Municipal governments don't take any interest in finding out why people are concerned about fracking.
 We should expect them to do some critical thinking and background work. There's room for town hall discussions on this topic.
- Municipal governments must become more informed, hold public discussions and encourage critical thinking about development looking long-term at impacts and safety concerns.

Memorial University:

- As we see today, Memorial University is able to facilitate non-partisan discussion, moving beyond "pro/anti" positioning. Forums that address serious topics such as fracking, fracking's impact on society, energy economics, health and environment, etc. help engage the public. "Memorial Presents" public forums (such as the one held the evening before this forum) are useful; more of these kinds of presentations paired with an opportunity for Q&A sessions may be an effective way of engaging the public. The report from this event (including the recommendations) should be sent to the Review Panel on Fracking.
- The Harris Centre could play a key role in the process of consulting and engaging people at the community level. The "kitchen-party approach" is as valid an approach as the expert presentation approach.
 Bus tours to communities targeted for fracking could be a useful tool for engagement by Memorial researchers.
- Memorial University is too closely linked to the petroleum industry. Due to diminishing money from the
 government, the University must turn to other sources, and the richest of these is the oil & gas industry.
 Memorial needs to be more vocal in making the industry and government more accountable to the
 public on complex issues.
- However, there is a difference between academics and the university as an institution; individual academics still have the freedom and tenacity to criticize oil sands, the industry, etc. The University should conduct more peer-reviewed research in contentious areas, and researchers should not in any way be penalized for conducting peer-reviewed studies of, say, the implications of fracking on the environment and health, etc. Elected officials often vote on issues without doing or reading pertinent research; that is why academic, unbiased, peer-reviewed research is so important. There's a place for both technical policy documents and more concise materials for public consumption.
- Reports need to emerge, not just from the natural sciences, but also from the social sciences. Given that
 issues such as fracking are multi-dimensional, it is important to eliminate the silos that exist between
 various academic disciplines. Research is also needed in community health, including baseline research
 on existing environmental conditions.
- The university can do broader, bigger-picture (and longer term) research extending beyond a political term. Whereas politicians come and go every few years and do not have long-term commitment to

- researching implications of industry like fracking on the very fabric of life, academics have a much longer duration for studying such crucial things.
- There needs to be a multi-layered information system including monitoring, even if it takes a long time to do well.
- There is a huge need for land use planning, mapping, land registry and GIS projects. Maps are powerful and tie directly into issues of land use planning that were brought up at the Irish Loop workshop⁴. This is twice now that community members have expressed a strong interest and a vital need for Memorial University or the Provincial Government to step up and provide GIS specialists, geographers, social scientists, and urban planners to help ameliorate some of these problems before they become even more entrenched and expensive down the line.
- Something like *Vital Signs*⁵ could help disseminate information to a non-academic audience. As well, the creation of a best practices plan could be helpful.

NGOs/Citizens' Groups:

- There is a need for grassroots involvement and for real consultation with the public, where their opinions are taken seriously. Grassroots groups that represent a wide range of opinion (and that are not narrowly ideological) have more impact on public policy and may be a more effective counterbalance to vested interests. To date, it is these groups that have stimulated the greatest amount of conversation in Western Newfoundland. These groups are important, and leaders from these groups should be invited to sit in meetings of the Board of Trade, roundtable meetings with government ministers, etc.
- Elected officials should be representing all viewpoints, but this is not necessarily happening. Grassroots groups have an important role in motivating politicians. Tri-party conversations are needed between government, industry, and civil society.
- Federal, provincial, municipal governments have demonized NGOs/citizens' groups to try to further the pro-fracking movement.

Drilling companies:

Drining companie

• Project-by-project assessments (the current process for evaluating development projects) omit cumulative effects of multiple projects and don't provide a holistic vision of what we want as our energy future. We need a multi-disciplinary assessment that has more of a landscape/bigger-picture vision.

• Developers should be compelled to provide truthful information about costs and risks, and straight answers about what they're proposing to do. Shoal Point Energy, for example, has evaded the most basic questions in regards to waste water disposal. Their responsibility is to be able to be transparent and answer the questions (about number of jobs, etc.). Junior companies may not have the capacity and/or resources to be able to answer questions like these. The Environmental Assessment process is not seen by some as legitimate, the public should be given the opportunity to scrutinize and comment on it. The environmental assessment and decision-making processes need to be revamped province-wide.

Issues of land use planning were top-of-mind at a Harris Centre Workshop held in the Irish Loop the week before this forum: http://www.mun.ca/harriscentre/regionalworkshops/Irish_Loop_RW_Report_final.pdf.

Vital Signs is a compendium of statistics about Newfoundland and Labrador that looks at various factors, such as demographics, education levels, availability of drinking water, etc.: http://www.mun.ca/harriscentre/vitalsigns/.

• In the current environmental assessment process, developers hire a consulting firm to assess the impacts of a specific project, and the consultant's report is then submitted to government for approval. This incentivizes the consulting firms to approve most projects, including dubious ones. It is instead proposed that government select and hire the consultant firm, and that the costs of the assessment be reimbursed by the developer. Consultants would therefore be freer to criticize a marginal project or to include findings not necessarily supportive of a project.

Media:

- The media is key in engaging the public. Talk shows, for instance, give citizens an opportunity to voice their opinions and concerns. The media, unfortunately, does not engage in investigative journalism to the extent it could in this province.
- The media are generalists and rely on information provided by other parties for stories. Memorial University should position itself as the go-to institution to clarify issues or to get leads for stories. There is a need for Memorial to present research to the media in an accessible way.

Other groups:

- Labour organizations, Aboriginal peoples, health groups and other community groups need to be included in the decision-making process.
- The Newfoundland and Labrador College of Family Physicians has called for a fracking ban/moratorium.
 New Brunswick's Chief Medical Officer came out with recommendations against fracking. The New York Concerned Health Professionals conducted 400 peer-reviewed studies done in 2013, following which the Government of the State of New York imposed a moratorium on fracking.

NEXT STEPS AND EVALUATION

Three main themes seem to have emerged from the discussions at the Forum:

- 1. Instead of looking at fracking in isolation, it is imperative to look at it within an overall vision of a sustainable region. This implies the need for a vision in the first place. It was proposed that Memorial University of Newfoundland could play a role in helping citizens of Western Newfoundland create this vision. The vision should not limit itself simply to the region but should also include how proposed developments could impact global climate change (either positively or negatively).
- 2. As regards fracking itself, there is a need for more information about it in order to be able to make an informed decision about its possible adoption in the region. What are the engineering, geological, biological, social and other risks involved? Who would most stand to benefit from any fracking activity and who would be exposed to the most risk? There is a need for baseline surveys so that impacts of developments can be more easily determined.
- 3. There is a lack of confidence in the current approval process for development proposals. Consultants are incentivized to approve projects; developers can withhold information; the regulatory process is seen to favour developers at the expense of local residents and the environment; and the approval process is generally perceived to be opaque. The regulation of fracking should not be on a well-by-well basis, but on a holistic basis, and should include all impacts from a life-cycle perspective (from exploration to decommissioning to long-term monitoring).

The next steps in the process are to compile the notes gathered by the note-takers into one report, and to circulate the report to the Forum participants. The report will also be forwarded to the Chair of the Newfoundland and Labrador Hydraulic Fracturing Review Panel.

Approximately half the participants filled out the evaluation form at the end of the forum. Out of a possible score of 5, the following questions elicited the following scores:

Q1	The promotion for this event accurately described it	3.7
Q2	There was sufficient time for discussion	4.3
Q3	My opinions were treated with respect by the facilitators	4.4
Q4	My opinions were treated with respect by my fellow participants	4.3
Q5	The facilitation was unbiased and impartial	4.0
Q6	The event was a positive contribution to the discussion on fracking in Western	4.3
	Newfoundland	
Q7	MUN plays a key role in finding solutions to issues in NL	4.1
Q8	Overall, this session met my expectations	4.0

Some respondents submitted comments:6

Some minor grammatical corrections have been added to some comments for ease of comprehension.

- Great to see this session after the divestment. This was an excellent event; very good to see Black
 Spruce representatives here. Congratulations on a great job! It was a shame that Dean Ball did not stay
 to hear the different viewpoints. Sometimes an open mind needs to be filled. It was also good to see the
 antipathy towards electronic clicker. Let's hope that if there is a Review Panel it will not go down that
 route.
- More than enough discussion time. Next event: speaker on a variety of topics, such as health, social and economic impacts, etc., or another on climate change, energy policy.
- Every development can be done in a sustainable "economic" way. But we face many crises that include the environment, economics and energy sectors. This discussion should have been broadened to include alternatives and other factors that need to be reviewed with the public and many sectors to say "if fracking can be done sustainably" vs. other alternatives. Bring everyone in the debate including the "Labrador" Coastline.
- It was a good attempt. I'm not sure that we delved into the issues enough to try and reach common ground. I have a lingering sense of frustration that there is still a belief that fracking might be an economic solution, when we haven't really understood the "problem" and its causes. Aging population, outmigration: not unique to Western NFLD. Also, was industry spokesperson being honest when he said they were not looking at fracking? So who is driving this push for fracking??
- Thank you friend, see you again.
- Suggest a more open and less focused session format, with more open questions and an emphasis on general issues of energy and industry, or discussion on alternatives to fracking
- Well done, fair, balanced.
- Promotion was lacking, late. Facilitation improved over the course of the day. Harris Centre and MUN
 does have an important role to play in visioning: a sustainable energy policy for NL, ecosystem-based
 adaptive management for NL, especially for coastal areas. I hope that NL [undecipherable] Review on
 Fracking consultations will provide this level of dialogue and input, but I doubt it.
- Maybe the title should have been along the lines for open discussion on people's views on fracking. There is a need for communities to have a long-term vision: what do they want their communities to be/ to look like in 20 years. Also need for land use planning, proper protection of certain assets. Mapping of potential oil/gas areas on/offshore: where is it, what potential, overlapping land-use issues.
- Disappointed that no representation present from municipal, provincial or federal politicians except for one mayor. Wonderful group of participants.
- This should be continued.
- Very good session (excellent moderator (Mike? Yellow sweater?) time expert with good synopsis!! Fair!! Very good panelists, good space, relaxed, engaging, respectful. Bravo Harris Centre!
- Great event, we need more of these types of events. Great job, MUN.
- Well run. I think HC has repaired the damage from last year's meeting. Suggest that the Revue Panel be
 addressed as a result of this meeting which clearly recognized their deficit: composition, lack of public
 health, community health.
- Additional meeting with results of this one!
- Didn't feel event was well publicized.

APPENDIX: MANDATES OF THE HARRIS CENTRE AND THE EPI

LESLIE HARRIS CENTRE OF REGIONAL POLICY AND DEVELOPMENT (ST. JOHN'S CAMPUS)

- To harness the resources of Memorial University in the areas of:
 - Regional development: solve problems using University expertise
 - Public policy: discuss important issues in an informed, non-partisan and respectful manner
 - Civic engagement: empower citizens to make informed decisions about their future
- University-wide mandate
- Province-wide mandate
- · Recognized as a "best practice" in Canada

ENVIRONMENTAL POLICY INSTITUTE (CORNER BROOK CAMPUS)

- To **facilitate debate** on provincial environmental policy issues within the environmental policy community as well as the broader public;
- To facilitate and coordinate research that offers a critical analysis of current environmental policy as well as innovative solutions to policy problems;
- To disseminate and "mobilize" this research widely to both academic and general public audiences; and
- To develop the capacity for environmental policy development, evaluation and engagement in the provincial policy community, both within and outside government.

APPENDIX: LIST OF REGISTRANTS

First Name: Last Name: Job Title: Company: Dean Ball Mayor of Deer Lake Town of Deer Lake Ken Bennett Burzynski Michael Retired ecosystem scientist Antony Card Associate Vice-President (Grenfell Memorial University of Newfoundland Campus) Research Catano Memorial University of Newfoundland Gary PhD Candidate Mike Clair Associate Director (Public Policy) The Harris Centre Matthew Connolly Owner A1 Safety Training and Consulting Ltd. Conor Curtis John Curtis Bob Diamond Labour Relations Consultant Self employed Duffy NI FAN Roger Brian Eddy Research Scientist Federal Government Assistant Professor Paul Grenfell Campus, Memorial University Foley Leah Fusco PhD candidate University of Toronto Bojan Furst Manager, Knowledge Mobilization The Harris Centre Donald Gale Retired Rob Greenwood **Executive Director** Memorial University Wavne Hounsell Retired teacher Ibrahim **Environmental Policy Consultant** Cam Don Ivany Director of Programs NL Atlantic Salmon Federation Simon Jansen lan Kennedy Director **Black Spruce Exploration** Aiden Mahoney Retired Anne Marceau Fracking Awareness Network of NL Substitute teacher Marche NL English School Board Kathy Judith May Retired teacher Mary McCormack Erin McKee Nick Montevecchi Geophysicist Dan Murphy Morgan Murray **Public Policy Intern** The Harris Centre Chris Noseworthy Greater Corner Brook Board of Trade Retired Graham Oliver Carolyn Paul Karen Rashleigh Rendell Owner/Operator Gros Morne Adventures Sue Marjorie Robertson Retired Paul Shoemaker Physician lan Simpson nil Sheila Simpson Jillian Smith Mark Stoddart Associate Professor Memorial University