"The safety that was, is gone": Muskrat Falls and Labrador Land Protectors' Changing Health and Wellbeing



Report for Labrador Land Protectors February 2019

This report was prepared by Jessica Penney for the Labrador Land Protectors and the general public. It consists of key findings from a Master's dissertation completed in Summer 2018.

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Acronym List

HVGB Happy Valley-Goose Bay
NL Newfoundland and Labrador
LLPs Labrador Land Protectors

MF Muskrat Falls

NG Nunatsiavut Government

Summary

This report summarizes health concerns in relation to the Muskrat Falls hydroelectric project expressed by a group of Labrador Land Protectors in Summer 2018. The project is anticipated to raise methylmercury levels in the food systems of Labradorians, and some residents are concerned that the North Spur, a natural dam portion of the facility, could break and flood their community.

This report highlights three main concerns:

- 1. Participants feared for their own health and wellbeing and that of their community in a way they never had before.
- 2. Conceptions of health and cultural changes were understood in relation to a changing environment, closely connected to Indigenous conceptions of health and wellbeing.
- 3. Participants were frustrated with the democratic processes that allowed the project to go forward, and felt as though they were experiencing ongoing colonialism.

It is hoped that this study can raise the profile of the health concerns of local people and situate individual stories within a wider context to influence positive change.

Background

Muskrat Falls (MF) is a waterfall on the Churchill River in Labrador, about 30 kilometers west of the community of Happy Valley-Goose Bay (HVGB) in Newfoundland and Labrador (NL), Canada. Nalcor Energy, a provincial corporation of the NL government, is building the Muskrat Falls hydroelectric facility to produce electricity using the falls as Phase One of their Lower Churchill Project. The facility consists of a spillway, two dams and a powerhouse¹.

The project has been criticized of Indigenous groups, local citizens and the province more generally, over health, safety, environmental and economic concerns. The site of the project has significant cultural importance for the local people of the area, and the water from the project's reservoir will flow into Lake Melville, used by Labradorians for hunting, fishing and gathering.

Figure 1. "The water is my home".



Reservoir creation for hydroelectric projects can elevate mercury concentration in the water, thus increasing levels in fish². As water and fish move downstream, so do the effects of mercury³, including through uptake in the food chain. As methylmercury builds up in marine animals such as fish that are consumed by people, it affects the central and peripheral nervous system. Exposure leads to symptoms such as, fatigue, anxiety, depression, memory loss and trouble concentrating⁴. It can also lead to kidney and liver failure and neurocognitive delays in children, as well as impact cardiovascular, immune, and endocrine system health. It may also impact cardiovascular health⁵.

The Nunatsiavut Government (NG) initiated the Lake Melville: *Avativut, Kanuittailinnivut* research program in response to Nalcor asserting that there would be no downstream impacts. It found evidence of "future significant impacts on methylmercury concentrations in the Lake Melville ecosystem and increased"

exposure to methylmercury from Muskrat Falls"⁶. An independent study by Harvard University initiated as part of the programme showed that if the MF project goes ahead as planned, it will likely increase exposure to methylmercury through traditionally harvested food from the lake and nearby environment⁷, potentially having negative impacts on Labradorians' health and wellbeing. The study also found that methylmercury exposures of Inuit in the Lake Melville region are already higher than in the average Canadian population⁸.

¹ Nalcor Energy. n.d.

² Bodaly et al. 1991 cited by Rosenberg et al. 1995: 131

³ Verdon et al. 1991 cited by Rosenberg et al. 1995: 132

⁴ Bernhoft 2012: 5

⁵ Schartup et al. 2016; Karagas et al. 2012 cited by Schartup et al 2016; Tan et al. 2009 cited by Schartup et al. 2016

⁶ Nunatsiavut Government 2016: 3

⁷ Nunatsiavut Government 2016: 3

⁸ Schartup et al. 2016

Labrador Land Protectors



Figure 2. Site of protests near the Muskrat Falls facility.

Other concerns have been raised by Indigenous groups, the local community in HVGB, and other communities in Labrador and across Canada for many years. Some of the most consistent resistance efforts have been organized by a group called the Labrador Land Protectors (LLPs), who describe themselves as, "a group of concerned citizens fighting against the development of the Muskrat Falls hydroelectric mega-project"⁹. This project focuses on this group and their concerns.

<u>Methods</u>

This research is guided by an Indigenous Research Methods (IRM) theory, since the researcher is Indigenous, as are many participants, and the project took place on Indigenous lands. Data collection took place in HVGB over three weeks in June and July 2018, with ethical approval from the University of Glasgow College of Social Sciences and NL Health Research Ethics Board. Participants were given the option to use their real names if they wished; anyone named in this report provided written consent.



To thank participants for their contribution, every person who attended an interview or focus group was given a gift of a handmade sealskin pin lined with beads in the colour of the Labrador flag made by Jessica.

Figure 3. Sealskin beaded pins made for participants.

⁹ D. Cole 2018, personal communication, June 1

Interviews

Interviews were completed with 13 LLPs in Happy Valley-Goose Bay, in with they explained how and why they became involved in resisting the MF project, how it had affected their life, and how they anticipated the project affecting them in the future. Each person is in the reference list at the end of this report.

Survey

A short survey collected basic demographic and health information, and also about participants' concerns in relation to the project.

Sharing Circle



Figure 4. Bulletin board outside of the Aboriginal Resource Center.

One sharing circle took place with six people (including the researcher) in the Aboriginal Resource Centre at the College of the North Atlantic. Participants discussed the importance of the land and water to them, their experiences on the land, and their wider concerns about the MF project.

Findings

1. Health and Wellbeing Concerns

Participants raised three main health and welling concerns in relation to the MF project.

i)*Methylmercury*

For Labradorians, concerns surrounding methylmercury cannot be separated from the food systems and food security of Labrador. Country foods such as fish, seals, caribou, and whales, are important for social, cultural, psychological, and spiritual reasons 10. The idea that what is perceived as one of the healthiest things to consume could now be harmful is almost inconceivable to some people.

This point was stressed by Marjorie Flowers, who said, "[The MF project] has affected me spiritually and emotionally. And of course the threat of being physically, you know, affected by methylmercury...because my life is on the land. My life is of the water. My life is, you know, country food". She went on to elaborate:

I have always believed that [...] the wild food is what sustains us as Inuit people. To live that way for...tens of thousands of years. In this certain niche of living and eating this food. These foods and these birds and these animals. How can we suddenly drop out of that? And not be affected. It's impossible. Our bodies are part of it. We are what we eat. That's a known fact, right?

Contamination of food sources is not simply a matter of excluding that animal from one's diet; it interrupts one's sense of self.

ii) *Flooding*

The North Spur is a piece of land that extends into the Churchill River, acting as a natural dam for the MF project; concrete dams have been built to hold the rest of the water. Many LLPs do not trust the North Spur's ability to hold the reservoir and fear it may collapse in the form of a landslide, releasing water towards HVGB. Participants spoke of local knowledge that discounts Nalcor's assessment that the North Spur can act as a dam. Roberta Benefiel noted, "...Nobody here trusts the North Spur. Nobody here believes that the way they've built this dam is actually safe for the communities living downstream". Sam Saunders said, "I've seen landslides all along this riverbank, right from down to the mouth of the river, right up to...Churchill Falls [...] When I was trapping one winter [...] I seen a landslide in the winter time. And [it was] not good".

In spring 2017, the community of Mud Lake, about 10 kilometres from HVGB, was flooded. While a report concluded that the construction and operation of the MF project did not influence the flood¹¹, some of the LLPs who took part in this project disagree. There is a fear that something similar could happen in HVGB as well if the North Spur were to break. The municipal government of HVGB has released ten maps showing the impacts a potential MF dam breach would have the on the community¹². Several participants live in this flood zone, and expressed worry about themselves, their families, and the whole community.

iii) Impact on Community Wellbeing

Some LLPs believe the above issues have a harmful effect on the mental and emotional wellbeing of people in HVGB. As Eldred Davis said in the sharing circle, "The thing is though, it's a lowering of

¹⁰ Donaldson et al. 2010 cited by Schartup et al. 2016

¹¹ Lindenschmidt 2017

¹² Town of Happy Valley-Goose Bay 2018

the quality of life [...] And that plays on everybody's mind. Some people probably get physically sick, I don't know. But, you know, like I said, the mental wellbeing is not what it should be when you got this hanging over you, you know?" Similarly, Jim Learning shared:

It's put what was a secure food supply, in question. And that's a psychological factor that now you have to overcome. You either ignore it, or try to tone down your expectations of the proteins you're getting from it... That becomes a question. So, yes. That's the impact of that in my world. Changes your perception of the safety that was,

Long-established beliefs and confidence in food sources are changing due to the MF project.

The stress, uncertainty, and psychological impacts of these anticipated negative changes could be harmful in other ways. Stress was a repetitive theme encountered. While speaking about the health impacts of the project, Eldred Davis said:

For me, and for most of the people in this community, I'd say, it's mental. It's stress, anxiety [...] I know people are going to bed frightened. I've heard of people getting up 4 o'clock in the morning, who live on Hamilton River Road or Cartwright Road, and they get up and get dressed and they see if the river's rising. [...] I know they're under stress right now.

There are also believed to be physical effects of stress. Associations have been made between stress and depression, and cardiovascular disease¹³. It may also impact upper respiratory tract infections, asthma, herpes viral infections, autoimmune diseases, and wound healing¹⁴. Therefore, the stress and fear experienced by LLPs and the community need to be considered as more than just worry, but as having the ability to impact individual and community health.

2. Environmental Change and Health and Wellbeing

As is the case for many Indigenous peoples worldwide, it was expressed that the environment is essential to cultural traditions for Land Protectors in Labrador, and destruction due to the Muskrat Falls project may negatively impact the health-protective aspect of cultural continuity. Further, many LLPs discussed having a relationship with the environment, and their participation in resistance to the MF project was part of upholding their responsibility to the land, water, and animals.

Culture is seen to have a positive effect on health, as participants shared the benefits of a land-based lifestyle that incorporates their Indigenous and/or Labradorian culture. Participants spoke about the importance of land-based activities for maintaining health and wellbeing, especially when living a busy, contemporary life. As Linda Saunders-McLean expressed:

And the thing about being able to go out on the land, or go out fishing or something, there's like a natural healing there. And being able to, you know, get away from the stress of work, or home, and just get out there. Even if it's like 25 [degrees Celsius] below and you go out on the ice and fish. You feel that rejuvenation of health.

This speaks to the cultural importance of the land and nature in Labrador. A healthy environment, in which one can partake in cultural and land-based activities, is essential for living a well-balanced lifestyle. This lifestyle is threatened by the Muskrat Falls project.

Environmental change and anticipated future change due to the MF project can disrupt the practices described above, with damaging effects. Existing work shows that the land is tied to Indigenous peoples' health in many ways, including because traditional foods such as whale, seal, fish, and birds

¹³ Cohen, Janicki-Deverts and Miller 2007: 1687

¹⁴ Vedhara and Irwin 2005 cited by Cohen, Janicki-Deverts and Miller 2007: 1687

provide essential nutrients¹⁵, and there are also important social and cultural benefits to consuming a traditional diet. For example, arts and crafts produced from harvested materials generates income and allows elders to pass on skills and knowledge to younger generations¹⁶. Industry contamination of these resources impacts the physical and spiritual health of Indigenous peoples¹⁷. As Marjorie Flowers explained, "We have food as an important pillar of Indigenous life. Country food. [...] And for this to happen with the Muskrat Falls project is...it's like it will be a total obliteration of our culture and our way of life". These changes in Labrador are not isolated, they are part of other changes, as caribou hunting has been banned, and salmon fishing is strongly regulated. The removal or restriction of more traditional food sources due to the MF project may have further detrimental effects on health and wellbeing for Labradorians now and into the future.

Many people spoke about the health impacts of being a LLP, including the stress of participation, of being arrested, of strained relationships with family members. However, it was also expressed to me that the community of LLPs is supportive and provides purpose. Denise Cole said, "knowing I'm walking a good path, it does, it helps". Several people expressed feeling empowered by their participation. As Marjorie Flowers explained about her experience after being arrested, "But how do I say this...the stay [in jail] itself was not traumatic for me at all, and anywhere near that. I knew that I had to do this, I had to make this statement that I would stay here in jail to make my point. And I felt empowered by that, I suppose, all the way through". So, despite the negative reasons for participation, being a LLP and opposing environmental destruction may, in turn, maintain personal health. This is representative of the mutual relationship between environmental and human health and wellbeing.

3. Structural Issues and Health

Accounts of lack of consultation and silencing by government officials and organizations were prominent, and shaped peoples' experiences of resisting the Muskrat Falls project. This section discusses how a perceived lack of freedom and lack of faith in the justice and political systems governing the MF project and province shape their concerns and influence health.

i) Methylmercury

On an individual level, there are health impacts of the perception of being ignored by the government and silenced by the justice system. Some people told me they experienced stress due to their interactions with the police and court. Roberta Benefiel mentioned how powerlessness influences health and wellbeing:

You know, your mental attitude about things affects the rest of your system, right? I mean, that's what I believe, so...healthy-wise, I don't think it's healthy for us to all feel like we're being stepped on all the time. I don't think it's healthy for us to have no say in anything that goes on in our home, the place we care about.

Safaei¹⁸ writes that there are direct and indirect ways that political environments can affect health. For direct pathways, suppressing people's rights, hopes and aspirations can influence psychosocial experiences such as depression, anxiety and stress. On a larger scale, population health is affected, as social and economic opportunities (such as jobs) are distributed similarly to political power and class¹⁹. Feeling ignored by the government can affect the psychosocial health of LLPs, and their social and economic positions may also be affected as they may not be afforded the same opportunities as those with more power and influence.

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¹⁵ Kuhnlein and Soueida 1993: 124

¹⁶ Inuit Tapiriit Kanatami 2014: 17

¹⁷ Richmond and Ross 2009: 404

¹⁸ Safaei 2006

¹⁹ Safaei 2006: 772

ii) Colonialism

Discussions of democracy are also connected to an awareness of current colonial practices that impact the lives of Labradorians and LLPs. When talking about the impact of not being able to participant in activities on the land, Erin Saunders told me, "It's colonialism. That's exactly what it is, it's colonialism". The potential contamination of Indigenous peoples' food sources, and destruction of local ecology that will change lifestyles and longstanding traditions, is in line with colonial policies of the past, such as residential schools, a Canada-wide policy where Indigenous children were forcibly taken from their families and sent to government and church-run schools with the purpose of assimilation into "Euro-Christian Canadian" society²⁰. The government has said it will compensate if contamination occurs (as it did with residential schools)²¹, but recurring compensation only to make the same mistake is not in the spirit of reconciliation as outlined by the federal government's Truth and Reconciliation Commission.

Regardless of explicit intention, it was felt by many participants that the attitude the government has towards them was the same as it has been for many years. Eldred Davis said, "...You're made to feel that you don't count. That you're inferior. That's always been the situation with Labradorians anyway". The paternalism associated with prior colonial policies is still present, and despite an appearance change, the MF project may have similar end results as residential schools by leading to a loss of culture, traditions, and intergenerational trauma.

From a consideration of narratives relating to democratic processes and colonial practices in relation to the MF project, it is possible to see how silencing and domination have taken place in favour of the agenda of a political regime and its economic strategy and partners. Powerful institutions have determined industrial interests, rather than community desires and concerns.

²⁰ Truth and Reconciliation Commission of Canada 2015: V

²¹ Fitzpatrick 2016

Conclusion

It is clear that the LLPs who took part in this study have intense fears about the MF project, particularly in relation to the impacts of methylmercury and flooding due to the risk of the North Spur portion of the dam breaking. These worries are associated with changing physical, mental, and emotional health. The connection of environment with individual health and wellbeing exhibited by LLPs is in line with existing Indigenous health literature²². Tagalik writes that Indigenous knowledge systems are holistic, "This integrated, inclusive, holistic view of the world is a natural and intuitive view implying connectedness, reciprocity, and relationality – the big picture perspective" ²³. Findings were directly in line with this view, as methylmercury and flooding were presented as the results of harmful environmental destruction, with negative consequences that ripple out to all parts of life, culture and society.

Potential Policy Implications

The concerns raised by LLPs in relation to health, particularly mental health, may have significant impacts on community health in HVGB, which is of interest to both mainstream health services and Indigenous organizations. Stories about people in the flood zone living in fear and constant stress should be taken into consideration, as depression, anxiety disorders and substance abuse commonly exist alongside stress disorders²⁴. Further, stress disorders are associated with increases in death, and are strongly associated with suicide²⁵.

The impact of changing lifestyles due to methylmercury contamination leading to changing diets could result in worsening health inequalities, as well as personal and community costs associated with



declining health. Food from traditional food systems connects the environment and human health, and forms the basis of social activity, unity, and integration²⁶. It follows that if this food is not available, these important social systems will likely suffer, impacting the social conditions that determine health in the wider Labrador region.

Figure 5. View from Birch Island Boardwalk.

It is hoped that this work offers insights that can have a positive impact on Labrador communities by raising awareness about the health and environmental issues

surrounding the Muskrat Falls hydroelectric project. Further, that this research may lead to greater recognition of Labradorians' concerns in future decision-making processes.

²² Richmond and Ross 2009

²³ 2015: 25

²⁴ Gradus 2017

²⁵ Gradus 2017

²⁶ Duhaime 2002 cited by Power 2008; Willows 2005 cited by Power 2008

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