When consultation becomes a checkbox, what’s the fracking point?: Colonial constraints on social learning processes in Northeast BC and the Fort Nelson First Nation’s New Approach to resource governance

by

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B.A., The University of Guelph, 2006

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

MASTER OF ARTS

in the Department of Geography

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University of Victoria

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Abstract

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This Master’s thesis seeks to develop a better understanding of how Indigenous voices can be included in water governance. As a starting point, social learning theory, collaborative governance and Indigenous and Canadian relations were carefully studied. Despite the large body of research on collaborative governance with First Nations and on social learning in water governance, little is known specifically about social learning processes in colonial contexts.

Using grounded theory and Indigenous methodologies, this research investigates how the current approach to implementing the Province’s legal constitutional, “duty to consult” affects social learning processes and the inclusion of Indigenous people in water governance. Findings indicate that the laws and policies that have been created based on the Crown’s interpretation of Treaty 8, an agreement signed between the Fort Nelson First Nation and Canada in 1899. This duty to consult constrains social learning, as it does not allow for the flexibility needed for a reframing process that might bring the actors to a common understanding of Treaty 8, the treaty relationship and its application as such today, as a basis for future collaboration. Without reframing processes, the consultation process is perceived by the Fort Nelson First Nation, a Treaty 8 nation, to lack legitimacy and neutral facilitation. Subsequently, consultation is seen as a checkbox that must be completed, but fails to include First Nations’ knowledge, interests and concerns about impacts from development and appropriate accommodation.

This research also investigates a new governance arrangement emerging in northeast BC, which changes the way Fort Nelson First Nation voices are included in decision-making. Processes of nation building and capacity building contribute to Fort Nelson First Nation’s New Approach to governance. The New Approach sees changes to the sites of authority, revenue and norms and beliefs, resulting in a governance innovation that circumvents the provincial government’s role in governance by creating a closer
working relationship between industry and the Fort Nelson First Nation. The results are development planning and decisions that better reflect the Fort Nelson First Nation’s concerns and interests in the near future.
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Acknowledgments

This thesis represents three years of work, made possible through the encouragement and contributions of many incredible people along the way.

First, I would like to thank my supervisor, Michele-Lee Moore. I am grateful for the kindness, support, and dedication that you’ve shown me over these past three years. You are truly a gifted mentor. To my committee member Chris Darimont for your thoughtfulness and insights. Thanks are also due to Margot Parkes, who offered a fresh perspective in this final draft.

To all of the research participants who shared their time, perspectives and knowledge. My deepest gratitude to Lana Lowe and the Fort Nelson First Nation Lands Department for welcoming me to your territory and community. I appreciate your generosity and the opportunity to learn from your experiences.

To Janet and the members of the Thesis Completion Group for a weekly dose of reassurance and motivation.

To my classmates and friends in the Department Geography – thank you for your support and laughter. To Maral, Erin, and Katie for your early encouragement. To Kira and Sarah for your solidarity. To Shannon for all the pomodoros and taking it bird-by-bird. To the WIGG Lab for the insightful discussions and feedback. To fellow grad students and Emily and Meg for your positivity and generosity.

To Christine and Mat, how very fortunate I am to have you as my fellow researchers, roommates and friends. You are both very cool.

To all my friends near and far for your open ears and arms, patience, and support. In particular, I thank Anne and Katharine for your positivity, laughter and unwavering belief in me.

To my family for your continued love and support. To my dad, thank you for your perspective and encouragement. A very special thanks to my mom. Your creativity, resourcefulness, and perseverance is inspiring. Thank you for being my role model, sounding board, and cheerleader.
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List of Abbreviations

BC MEM - Ministry of Energy and Mines
CEO – Chief Executive Officer
CPA – Consultation Protocol Agreement
DIA – Department of Indian Affairs
EAB – Environmental Appeal Board
EIA – Environmental Impact Assessments
EU – European Union
EWFD – European Water Framework Directive
FNFN - Fort Nelson First Nation
FNFNLND – Fort Nelson First Nation Lands Department
FNLO - First Nations Liaison Officer
IBAs – Impact Benefit Sharing Agreements
IWRM – Integrated Water Resources Management
HRB - Horn River Basin
LIDAR – Light Detection and Ranging
LNG - Liquefied natural gas
MARR – Ministry of Relations and Reconciliation
OGC - Oil and Gas Commission
OGAA – Oil and Gas Activities Act
SCC – Supreme Court of Canada
SDM – Statutory Decision-Maker
TEK – Traditional Ecological Knowledge
UVIC – University of Victoria
Chapter 1: Introduction

Overview and Research Objectives

On a cold Spring day in mid-April 2014, 200 BC First Nation Leaders and representatives from the provincial government and the oil and gas industry gathered in Fort Nelson for the “First Nation Shale Gas/LNG Summit: Striking a Balance.” I was also in attendance, acting in the role of a volunteer and note taker. The theme that carried through the day was the need to “strike a balance” between economic development and environmental protection and the importance of forming open, honest and collaborative relationships. Industry representatives gave presentations explaining the technology that turns shale gas coming from the Fort Nelson First Nation (FNFN) territory into Liquefied Natural Gas to be prepared on BC’s coast for export overseas. A hydrologist from the Oil and Gas Commission spoke about the water volumes used for hydraulic fracturing and in another, the basics of liquefied natural gas (LNG) extraction and transportation were explained in a talk entitled “LNG 101 – Economic Development Planning for LNG Extraction & Transportation,” by the Nations Energy & Mining Council (FN LNG Strategy, 2014).

On the first day of the three-day summit, there was an air of optimism and opportunity for achieving sustainable collaborative solutions for liquid LNG and shale gas development in the province. However, just one day later that same room was full of tension, after Chief Sharleen Gale of FNFN expressed her outrage upon receiving news that the BC Liberal cabinet had approved an order to remove sweet gas plants from the environmental review process. Chief Gale took the stage and made a declaration that was later signed by all the BC First Nation Leaders in the room:

Declaration April 16, 2014

In the territory of the Fort Nelson First Nation, industry, government and BC First Nations leadership gathered at “ground zero” of BC’s LNG Strategy. We gathered to see the impacts of the shale gas industry first hand and to discuss a path forward for governing our territories and transforming how the oil and gas industry does business in our lands.

On April 11, 2014, without notice and without consultation, the Province of BC amended the reviewable projects regulations
exempting “sweet gas plants” from the BC Environmental Assessment process. This means that many of the largest industrial projects in Canada will no longer be subject to environmental review or scrutiny.

As a Nation we are deeply insulted by this act.

Our Chief and Council met with Minister Rustad on Sunday and Monday for several hours. We welcomed him into our territory and we talked freely and openly about how our Nation can work with government. We talked about how we can be an active and equal partner in BC’s shale gas-LNG opportunity. We told him that we need to be involved in the decision-making.

Yesterday we watched Ministers Coleman and Rustad on a video claim that BC wants to work with us. They said that they know that BC’s LNG Strategy cannot be realized without First Nations.

At no point did these Ministers mention this monumental decision had been made.

At a time when BC has said it wants to “re-set” the relationship with First Nations as part of the LNG Strategy, the province has acted in bad faith and violated the honour of the Crown.

This is not acceptable.

We, the Fort Nelson First Nation, on behalf of our ancestors, our elders, our youth and those yet to come are putting the BC government and the oil and gas industry on notice that:

BC’s LNG Strategy is on hold. No shale gas development will proceed in FNFN territory until our nation and our treaty is respected and our concerns about our land and our waters are addressed.

We will have a say in what happens in our territory.

We have responsibilities that we have inherited from our ancestors that are enshrined in our Treaty to protect our people and our lands for the benefit of our community, now and into the future.

All agreements with the Province\(^1\) are now under review and we are looking at all options regarding our relationship with the province and industry. We are asking all nations to support us in this stand

\([\text{FNFNLD}]\) Fort Nelson First Nation Lands Department, 2014

\(^1\) In this thesis, the BC provincial government will sometimes be referred to as “the Province".
After reading out the declaration, Chief Gale asked all provincial government officials to leave the summit. She then addressed industry directly before also asking that they leave so the First Nations leaders could have an internal discussion:

The reason that I asked industry to stay today is because some of you have stepped up to the plate and want to work with us. You want peace, you want sharing. You want to access our territories, but you must do it respectfully. We are the governments of our territories. We are the ones that make the decisions on our lands. We are the ones that are enforcing our rights. Nobody else makes decisions for us. This is what you need to bring back to your CEOs, to your boardrooms, to the people you work with….In order for this relationship to go forward we need to find that common ground. We need to walk that path…I just wanted to give industry this opportunity to let you know that there are ways we can work together.

(Gale, 2014)

These two statements are reflective of themes explored in this thesis, which examines a Treaty First Nations’ experience as an actor in water governance in BC and their relationships with the provincial government and industry in BC. In the declaration letter (FNFNL, 2014), a clear assertion of rights and the demand to be involved in decision-making about the land and water on their territory land is stated; feelings of anger and betrayal towards the provincial government that FNFN was not consulted about the sweet gas plant are shared; and a strong concern for the land and water and a responsibility to protect them for the community and future generations is expressed.

The day following this declaration, the provincial government rescinded the order, reversing their decision and offering an apology, but the damage had already been done. The order to remove sweet gas plants from the environmental impact assessment process without appropriate consultation with First Nations was not a single incident where the Province failed to consult with and involve First Nations in decision-making, but just another chapter in a long history of excluding First Nations in governance of land and water.

2 The Fort Nelson First Nation is one of several BC First Nations who signed Treaty 8 with Canada in 1899. Most BC First Nations though, have not signed treaties, save for some First Nations on Vancouver Island who are part of the Douglas Treaties.
The discovery of large shale gas plays in northeast BC represents a significant economic opportunity for industry, the Province, British Columbians and First Nations. Along with the economic opportunity of shale gas development comes concerns about the impacts to the environment that come with that industry. In BC, these concerns have been voiced repeatedly by FNFN, whose land spans the gas rich Horn River and Liard River basins with their estimated 144-600 and 210 trillion cubic feet of natural gas, respectively (Council of Canadian Academics, 2014; Parry, 2013). Of specific concern, is the need for large volumes of water used to extract natural gas through a process called “hydraulic fracturing” or “fracking.” In this process water is combined with sand and chemicals, which is then disposed of in holding pools or injected into aquifers. FNFN has expressed their concerns about the use of water specifically in regard to its importance in their identity as river people, their culture as well as impacts on key fish and wildlife resources.

Due to the direct need for water in the extraction of shale gas, oil and gas companies must obtain permits from the Province for the withdrawal of water from the Horn River Basin and consult with FNFN about potential impacts to their Treaty Rights. Water, therefore has become a source of conflict among First Nations, industry and the Province. The use of water is necessary for economic development, which all actors stand to benefit from, but the impacts from withdrawing it and disposing it are borne primarily by First Nations.

The Province-lead consultation process for water withdrawals has become the means through which FNFN participate in water governance, yet the consultation process is fraught with criticisms in its ability to meaningfully engage with and incorporate First Nations peoples and knowledge adequately. For FNFN, the exclusion in water governance has lead them to attempt to slow development through strategic meetings with the Province, appeals to shale gas related development permits, and initiation of media campaigns against the use of water in fracking, until their concerns are addressed.

In the second quotation Chief Gale addresses industry directly; she acknowledges that some members of industry have shown their willingness to work collaboratively with First Nations. She makes the distinction between the provincial government and the First Nation governments by saying “we are the governments of our territories,” and “nobody
else makes decisions for us,” (Gale, 2014, 2:35–2:50). She emphasizes that she wants industry to know that there is a path forward if they work with First Nations to find common ground. Her comments are reflective of a new direction in water governance that FNFN has taken with industry, emerging from failures of the current water governance framework to address all actors’ interests and perspectives.

The sentiments expressed in the above statements can be extended to the broader experience that First Nations have had in water governance in BC and to the broader relations among First Nations, the Crown and industry within BC’s water governance framework. Water governance as defined by Moore et al. (2012) consists of three parts: “(1) who decides who may use water and for what purposes; (2) what standards must be met during that use to protect ecological, economic, social, or cultural values; (3) how that decision process is undertaken,” (Moore & Tjornbo, 2012, p. 2).

Numerous First Nations have made it clear that they should have a central role in water governance in BC (BC Assembly of First Nations, 2013; Fort Nelson First Nation Lands Department, 2014; Gale, 2014; The Union of British Columbia Indian Chiefs, 2010; von der Porten & de Loë, 2013). Industry, and the provincial government have also indicated the importance of including First Nations in governance of natural resources (Booth & Skelton, 2011a; EnCana, n.d.; Jang, 2015; The Province of British Columbia, 2015).

Water governance literature suggests that collaboration amongst colonial governments, First Nations and stakeholders is imperative to solving complex water conflicts (Mitchell, 2005; Mostert et al., 2007; Pahl-Wostl et al., 2007). However collaborative processes in BC have been criticized by First Nations at their failure to adequately include First Nations peoples and perspectives in decision-making (Booth & Skelton, 2011c; Gale, 2014; Nadasdy, 2003; Smith, 2013; von der Porten & de Loë, 2013).

Social learning is defined as “a change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions among actors within social networks,” (Reed et al., 2010, p. 6). The theory of social learning has been applied to resolve a varied suite of resource management conflicts and shows promise for this case study of water in northern BC. In
Europe, theories of social learning have been applied to water governance to suggest that certain conditions must be fostered in order to create opportunities for social learning and consequently, collaboration. In water governance, social learning occurs when diverse actors learn together how to manage water, developing common frames of understanding and other necessary conditions for collaboration to occur such as trust, honesty and respect for diversity (Mostert, Craps, & Pahl-Wostl, 2008). An influencing factor in social learning is the historical context in which governance takes place. Considering social learning research in water governance has predominantly taken place in Europe, questions remain about its application in Canada, a country with a distinct historical context.

1. How does the current approach to implementing the Province’s legal constitutional, “duty to consult” affect social learning processes and the inclusion of Indigenous people in water governance? [Chapter 2]

2. Are shifts in water governance structures or processes occurring from changes to the Fort Nelson First Nation’s relationship with the Oil and Gas industry, and if so do they create new opportunities for First Nations’ to realize their goal of self-determination? [Chapter 3]

In addressing these research questions the thesis also meets the following objectives:

i. To assess social learning processes in FNFN territory
ii. To identify barriers to social learning processes in FNFN territory
iii. To describe FNFN’s New Approach to water governance
iv. To assess the New Approach as a water governance innovation
v. To determine the extent that the New Approach includes Indigenous voices in water governance

Organization of Thesis

My thesis is based on two standalone manuscripts, which together contribute to a larger narrative that runs throughout. I begin with an introduction followed by three distinct but connected chapters. In Chapter 2, I explore ideas of how the historical context created through colonialism could affect social learning processes in the realm of water governance. In Chapter 3, I explore how shifts in water governance are occurring.

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3 Chapters 2 and 3 were written with the intention to be published separately in academic journals. As such, some elements in these chapters are repeated, such as parts of the introduction, research context and method. In preparation for publication, I expect that these chapters will be revised appropriately for the chosen journal, in collaboration with Dr. Michele-Lee Moore and a representative from FNFN.
through a First Nation/Oil and Gas Industry relationship that creates a space for the First Nation to exert their goal of self-determination while operating in the current legislative constraints of that historic context. In Chapter 4, I conclude by summarizing the key findings of this study, discussing limitations to research and offer contributions to social learning theory, collaborative governance theory and water policy.

**Research Approach**

Early on in the thesis program, I knew I had an interest in conducting research in the area of water governance and First Nations. In September, 2012, my supervisor, Michele-Lee Moore forwarded me an invitation from POLIS4 and Karena Shaw of the School of Environmental Studies, to attend a meeting with Lana Lowe, the Director of the FNFNLD. Lana was interested in speaking to researchers interested in water governance and shale gas in northeast BC. Lana described some of the impacts her nation has seen from the development of shale gas in recent years and their concerns about the current approach to water governance. That meeting was the first time I had heard about hydraulic fracturing in northeast BC and I expressed my interest in getting involved. Also in attendance at this meeting were Karena Shaw and Mat Murray, a Master of Arts student in the Environmental Studies program. Over the next few months, Mat Murray, myself, and another of Karena Shaw’s graduate students, Christine Twerdoclib decided to go ahead with our research projects in collaboration with FNFN, each interested in related, but separate research themes. Together, we set out to stay in Fort Nelson in May and June of 2013 for six weeks. We made arrangements with Lana and the FNFN to rent a FNFN member’s trailer and for office space in the FNFNLD.

**Methodology: Grounded Theory and Indigenous Methodologies**

Given the exploratory nature of this study and its focus on Indigenous issues, I chose to incorporate ideas from grounded theory and Indigenous methodologies.

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4 The POLIS Project on Ecological Governance is a centre based out of the University of Victoria in British Columbia, for transdisciplinary research that investigates and promotes sustainability. Please see [http://www.polisproject.org/](http://www.polisproject.org/) for more information.
Indigenous Methodology

Incorporating Indigenous methodologies (Chilisa, 2012; Louis, 2007; Steinhauer, 2002; Wilson, 2007) into the research design provided me with guiding principles for conducting research with and for Indigenous people. Indigenous methodology emphasizes that any research, particularly that being undertaken by a non-Indigenous scholar, should first and foremost be undertaken with an attitude of humility, respect and openness.

When I was in the initial stages of forming this research project, I was excited and interested in the case study, but also felt intimidated by the responsibility I felt to act respectfully and honourably, afraid that being a non-Indigenous person in the role of researcher in and of itself would perpetuate colonialism. This feeling was intensified when I began to read deeper into Indigenous methodologies.

The collective memory of imperialism has been perpetuated through the ways in which knowledge about Indigenous peoples was collected, classified and then represented in various ways back to the West, and then, through the eyes of the West, back to those who have been colonized (Smith, 1999, p. 1).

Quotes like this, confirmed to me the risk inherent in engaging in research with First Nations, a process where I would ask to be both an observer and a participant, to share their knowledge, interpret the meanings of their actions and words and then share my interpretations. To misinterpret, or use this information solely for the benefit of those not belonging to the Nation would add to an already long history of colonial research. I went forward tentatively, acknowledging the risk I took as a non-Indigenous researcher, but encouraged by the words of Simpson, (2001) who said,

Outside researchers who are useful to Aboriginal peoples do not have their own research agendas, or at least are able to put them aside. They are willing to spend time looking inside themselves, uncovering their own biases and privileges, and they are willing to learn from our people, not about Aboriginal peoples but about themselves and their place in the cosmos, they are willing to be transformed, in a sense they are willing to be developed (Simpson, 2001, p. 144).

In this vein, I share my own position in this research. I am a non-Indigenous middle-class woman who was born on Coast Salish territory. My parents’ ancestors come from Europe: Ireland, France and Iceland, as far as I know. As a child growing up, my
knowledge of Indigenous peoples in Canada was limited to the histories taught in the school curriculum at that time: potlatches, button blankets and cedar canoes. Indigenous culture as taught was a neat unit from the past, separate from my own reality and seemingly distinct from my own history. Later in high school, we learned more about the British and French Colonies, the forming of Canada, settler-Indigenous relations, voyageurs, the fur trade, pemmican, small pox, the Hudson Bay Company, and the gold rush. My knowledge outside this one-sided historical perspective was limited. I had no exposure to discussions about what the implications of this colonial relationship are today and the uncomfortable reality that we continue to be settlers on Indigenous land.

I take to heart Martin and Mirrabooka’s (2003) admonition that researchers must recognize Indigenous world views, knowledge and realities as distinct and vital to the existence and survival of Indigenous peoples; the social, historical and political contexts that have shaped Indigenous experiences must be emphasized; voices and experiences of Indigenous people must be privileged in the research and lastly, that research should identify and address issues of importance to Indigenous people. Every attempt has been made to accomplish this here, but I recognize that learning how to practice this well is an on-going process.

During the first year of this thesis, the Idle No More Movement began. Teach-ins and town-hall meetings encouraged a discussion of colonial realities. For the first-time I was called a “settler”, a term that made me uncomfortable. At one-such event at the First Peoples house on the University of Victoria Campus a non-Indigenous woman stood up and tearily spoke about how she didn’t identify with the word “settler”. She was not someone here to take Indigenous land, or against Indigenous rights, she was an ally, someone who wanted to do the right thing. “Yes!” I thought. “I am not a settler. That’s not me”. Later I heard people sarcastically apologize for making the settler uncomfortable. I understood her pain, I understood their bitterness. It is this tension I have been grappling with. The privilege I have inherited. A system that inherently favours settlers, set to be fair, but inherently colonial. And, the inconvenient truth that the land most British Columbians live on has never been ceded. “How can we ever get out of the mess we are in?” I wondered.
Meanwhile I was reading about Indigenous governance and nation-building. Alfred’s (2005) work struck a chord with me. Alfred argues that education is key to both reawakening traditional values in Indigenous communities and leadership and to raising awareness in non-Aboriginals around the historical colonial context. As Alfred (2005) maintains, education is the key to starting this shift of understanding,

What is needed in countries like Canada and the United States is the kind of education that would force the general population to engage with realities other than their own, increasing their capacity to empathize with others—to see other points of view and to understand other people’s motivations and desires


This resonated with me as I faced the uncomfortable reality of my position in colonialism and as I reflected on the complex relations among the Crown, industry and First Nations.

In undertaking this research, I had a personal goal to be useful to Aboriginal peoples, not use them, to learn from Aboriginal peoples, not about them. This is in line with Smith (1999), who describes how colonial research makes Indigenous peoples the objects of research, “The objects of research do not have a voice and do not contribute to research or science,” (Smith, 1999, p. 61). In this research, I have sought to make the colonial nature of water governance the object of the research and seek ways to decolonize these processes by asking how First Nations voices and perspectives can be included.

To this end, in designing this project, I looked for guidance from Indigenous researchers. I followed Wilson’s (2007) synthesis of guiding principles, which urges researchers to: conduct all actions with kindness, honesty and compassion; to allow the benefits for the Indigenous community to drive the research; and for researchers to work with a team of Indigenous thinkers. Wilson (2007) emphasizes the importance of the researcher constantly evaluating responsibilities and obligations to the researched, making sure that those responsibilities are being fulfilled.

I believe that these principles have been followed. Lana and the FNFNLD staff and consultants were my “team of Indigenous thinkers” who influenced the development of this research along the way. A research protocol was signed between FNFN and the University of Victoria setting out how confidential information acquired would be
protected. Specifically, any material to be published must be sent to FNFN 60 days prior to the intended publication date and FNFN must provide feedback within 30 days of receiving the material. I have continually worked to respond to the nation’s research needs and searched for ways that I can honour the generous gift of time and accessibility to the nation that has been granted to me. FNFN arranged for a place for my fellow researchers and I to stay and offered us offices in their Lands Department where we came to work every day. We were invited to come to internal meetings with consultants and lawyers as they discussed strategy in preparation for meetings with the provincial government, the Oil and Gas Commission and meetings with industry. Most helpful were casual conversations out for dinner or at the pub with FNFNL and consultants, where data was not collected per se, but where frank opinions about the realities of FNFN-provincial government-industry relationship were revealed. The opportunity to be a part of these conversations and meeting debriefings added context and meaning to my understanding of governance in the territory.

Although these ideas on Indigenous methodology have guided me in my research approach, I have struggled along the way to deliver in tangible ways that I can reciprocate. At first, it seemed straightforward. In 2012, FNFN was working with consultants to create a Water Management Strategy. It seemed fitting that this research could contribute to their formation of the engagement and governance part of their water strategy that would outline how FNFN wished to engage with industry and the provincial government. However, the timing of research collection and the formation of the Water Management Strategy did not line up and I was unable to contribute in the way that I had anticipated.

Throughout the research period and beyond, my fellow researchers from UVic and our supervisors emphasized to FNFN that it was important to us to be useful to FNFN and draw on our skills, knowledge and networks to help them. We came up with some different ideas: offering to write op-eds in newspapers at a time that was strategic for FNFN, giving a presentation to FNFN Chief and Council on our findings, co-authoring journal articles with Lana her position, or forming a research advisory board. The ideas have been put forward as possibilities and can be revisited once again. Through discussions with Lana, we decided that reporting research findings back to the
community through a presentation was not the most useful use of our limited resources, especially given the cost to travel to Fort Nelson from Victoria. We decided that instead, I would use research funding to travel to Fort Nelson during the First Nation LNG Summit held in April of 2014. I was available to facilitate breakout sessions between the community, the provincial government and industry or serve as a note-taker if facilitation wasn’t needed. As explained earlier, the summit was cut short and therefore the breakout sessions did not happen.

With or without a tangible deliverable to FNFN, what I do feel is a tie to their nation - ready to be called upon if they should want. More broadly, as I look to my own future in a potential role as a manager of resources, I feel a new awareness of my responsibility in the reconciliation of Aboriginal and Treaty Rights. I am struck by the difference that individuals who are willing to see others’ perspectives can have in creating new possibilities for collaboration. I am grateful for the opportunity I had to work with FNFNLD, spend time in FNFN territory and to understand what it is like for FNFN to engage in colonial resource governance processes. Through my future work in resource management I see my responsibility to bring the learning that has occurred throughout this research, both academic and personal, to my community of practice.

Methods: Semi-structured interviews, participant observation, and document analysis

Grounded theory approaches were followed with an iterative approach to collection and analysis (Corbin & Strauss, 1990). Research methods included semi-structured interviews, participant observation and document analysis. My first point of contact with FNFN was Lana Lowe, Director of FNFNLD. In keeping with the Indigenous methodological approach, we agreed that she would introduce me to the community and to FNFNLD staff, and provide preliminary suggestions of who to interview, with the understanding that a basic criterion was that participants were involved with or familiar with water governance in the region: industry proponents, FNFN community members, FNFNLD staff and members of the provincial government. From there, the snowball technique was used, where one person recommends another to generate more participants.
Extensive effort was made to access industry and provincial government perspectives, however few responded to the requests for interviews. I conducted seventeen semi-structured interviews between May 2013 and January 2014; three with FNFNLD staff (plus one repeat interview); two with FNFN community members; one with a FNFN councillor; two with FNFN consultants; three with industry proponents; one with an employee of another First Nations band; and four with members of the provincial government. Of the members of the provincial government who did respond, none were directly involved with FNFN on shale gas development and water governance in their territory.

I spent six weeks working in FNFNLD in May and June of 2013, participating in and observing day-to-day activities of the department related to consultation and shale gas development, through established methods of participant observation. I attended community events and meetings with Province and industry. Participant observation of events, such as the testimony from an Environmental Appeal Board hearing between FNFN and the Province of BC’s decision to issue a conditional water license to Nexen were also used as sources for data collection. The final written argument as submitted by FNFN was used to supplement data gathered through interviews and participant observation. This document contained written versions of testimony given in the Environmental Appeal Board hearing, scientific reports that the decision to grant a water license was based on, and emails between provincial government members and between the provincial government and FNFN. These documents provided insight into how the Crown carried out consultation with FNFN.

Interviews were recorded and transcribed as soon after the interview as possible. I wrote personal memos throughout to reflect on the interviews and other events during the data collection period, which informed the research. The interview transcriptions were coded by hand and analyzed following guidelines outlined by Corbin and Strauss (1990). The first interview was analyzed using line-by-line coding or open coding. The codes generated in the first interview were used to analyse the second interview and the third interview was analyzed using codes generated in the first and second interviews. Analysis of subsequent interviews continued in this manner. As main codes and emerging themes
were identified, subsequent interview questions evolved to delve deeper into the themes in order to add nuance and test theories about governance processes.

After all interviews were analyzed, codes that were generated in the first round of analysis were grouped into themes and subthemes. Although grounded theory uses data to examine subjective understandings rather than focusing on stories and experiences on their own (Suddaby, 2006), in keeping with Indigenous research methodologies (Wilson, 2007), data have been presented verbatim, whenever possible in order to ensure that intent and content of Indigenous voices, in particular, remained intact. Each interview participant was offered an opportunity to review the data and draft of the thesis.

An information sharing agreement was also signed between the University of Victoria and FNFN, specific to confidential information about the development and negotiation of FNFN’s new governance regime that was not gathered through interviews. Through this agreement, FNFN acknowledged that UVic could use confidential information in presentations and publications as long as FNFN is notified 60 days in advance of such a presentation or publication. UVic agreed to remove any confidential information that FNFN objects to, as long as FNFN provides their objections in writing within 30 days of receipt of such proposed presentation or publication.

**Literature Review**

Inclusion of First Nations in water governance, in the context of BC is a timely and relevant topic. I support this statement by discussing two broad themes to provide background for this research. First, including diverse actors in water governance is understood to be necessary for achieving sustainable water resource management. This idea is explored through a review of water governance literature, collaborative governance literature and social learning literature. I argue that further emphasis be put on the influence of the historical context of water governance frameworks is needed. Therefore, as a second theme, I discuss Canada’s history with Aboriginal Peoples to provide the colonial context of water governance in BC. This includes a discussion of Canada’s shifting legal landscape and the contested meaning of the term “treaty.” Non-Aboriginal people’s assumed right to govern Canada has lead to on-going tension over land and resources between First Nations and non-First Nations. After providing this
background of key water governance trends and the colonial context of water governance in BC, I introduce the specifics of the research case on which I base this thesis.

**Water Governance**

Traditional water governance paradigms, both in Canada and elsewhere, have been based on frameworks of development exploitation and supply management, relying on the government as the primary decision-maker (Matthews, Gibson, & Mitchell, 2007; Molle, 2009; Norman & Bakker, 2009; Shrubsole & Draper, 2007). For instance, in British Columbia, the *Water Act* was originally established as a tool to provide certainty about water supplies to explorers during the Gold Rush (The Province of British Columbia, 2012). Some scholars have identified problems associated with traditional water governance such as fragmentation of government, both vertically and horizontally (Mitchell, 2005, 2006; Muldoon & McClenaghan, 2007; Saunders & Wenig, 2007; Serageldin, 1995), low accountability (Mitchell, 2005); and no statutory base (Mitchell, 2005). Others frame the problem in terms of climate change and the need for resilient governance systems that are flexible and adaptive and therefore need to include many perspectives and kinds of knowledge (Hipel, Miall, & Smith, 2011; Norman, Bakker, & Dunn, 2011; Pahl-Wostl, 2002; Pahl-Wostl et al., 2007).

As one part of the response to these issues, scholars in the fields of environmental water resource management have declared a need to shift to a more holistic governance system in which decisions about water are made not just by the provincial government, but by Indigenous Nations, nongovernmental organizations, and water users so that these groups can achieve shared goals (Cohen & Davidson, 2011; Mitchell, 2005; Pahl-Wostl, Holtz, Kastens, & Knieper, 2010; Shrubsole & Draper, 2007; Tortajada, 2010). Part of the driving forces of change come from the shifting values of society (Gleick, 1998), and the above mentioned issues regarding First Nations’ longstanding struggle to assert Rights and Title, but significant pressure also comes from networks of water experts working across various levels of colonial government and in different sectors, frustrated with the failure of these governments to address complex problems (Conca, 2006). “Critical voices have stressed the need for a radical paradigm shift to avoid failure by prevailing environmental resources management caused by, mechanistic and technocratic
strategies that neglect complexity and the human dimension” (Pahl-Wostl et al., 2010, p. 571).

Collaborative Water Governance

Collaborative governance is a type of water governance framework that reflects this new holistic governance paradigm with its recognition of the need for different types of knowledge, creating opportunities for self-organization, networks and bridging institutions and participatory governance (Folke, Colding, & Berkes, 2003; Folke, Hahn, Olsson, & Norberg, 2005; Pahl-Wostl et al., 2010; Pahl-Wostl, 2007). Although definitions vary, a common characteristic of collaborative governance is that public authorities share decision-making power with local individuals or groups who would be most impacted by decision-making outcomes (Morton, Gunton, & Day, 2012). Agreements negotiated through collaborative governance processes are thought to lead to more creative, long-lasting solutions with more buy-in from stakeholders and reduced conflict (Margerum, 2008; Morton et al., 2012). Partnerships, networks and shared knowledge among stakeholders are also built through participatory processes of collaborative governance that can be effective at addressing new unforeseen issues that may arise in the future (Folke & Berkes, 2004; Morton et al., 2012; Zurba, 2013).

Dominant in the water governance literature, is the idea of Integrated Water Resources Management (IWRM)– a framework that places an emphasis on balancing economic, environmental and social needs as necessary for the sustainable management of resources (Conca, 2006). The most prominent definition of IWRM is the definition provided by the Global Water Partnership which describes IWRM as, “a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems,” (Global Water Partnership, 2000, p. 22).

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5 Throughout this thesis I use participatory processes to mean any decision-making process that actively encourages non-governmental groups or individuals to contribute their ideas and expertise in the decision-making process. The level of participation can vary, from gathering input from the public through town hall meetings, or written submissions of opinion, or on the other end of the spectrum, formal partnerships that share-power. Collaborative governance is an example of a participatory governance process that fall on the higher spectrum of participatory processes.
Despite IWRM’s dominance, it has been applied in conflicting ways, resulting in debate over its interpretation (Conca, 2006). Tensions over ideas of whether water is an economic good or a basic human right resulted in the affirmation that water is both a right and a commodity (Conca, 2006). But IWRM’s malleable language results in widely varying interpretations and applications of the framework (Conca, 2006). Scholars argue that much like the term “sustainability,” organizations and governments that claim to follow an IWRM framework have resulted in little change and the continuation of “business as usual” attitudes (Biswas, 2004; Molle, 2008).

The operational path to implement these collaborative frameworks and theoretical concepts though, is vague and many criticisms have arisen with the failure of these theories to result in the promised benefits of more legitimate and effective governance (Biswas, 2004; Mitchell, 2005). Norman and Bakker (2009) caution that the power dynamics of actors in the real world are echoed in collaborative processes, with minorities’ opinions oppressed through their lack of capacity to influence and negotiate with their other, more powerful counterparts. Mitchell (2006) cautions that in efforts to take a holistic approach, the collaborative mechanisms that IWRM uses can result in tension among individuals, communities, and stakeholder groups who do not consider the whole ecosystem, but instead are self-interested. Furthermore, Mitchell (2006) argues that for collaboration to be successful, partnerships must give attention to certain attributes:

- shared vision; compatibility between participants based on integrity, mutual trust and respect, as well as patience and perseverance by all partners; adaptability and flexibility; inclusive representation; benefits to all partners; equitable power for partners (not the same as equal power); clear ground rules; process accountability; sound process management; clear communication channels; realistic time lines and well articulated implementation and monitoring processes (Mitchell, 2006, p. 54)

In addition, Gunton and Day (2003) highlight that it is essential to determine if a collaborative approach should be pursued in a specific situation. To determine when participatory approaches are appropriate, they identified five pre-conditions:

1. commitment of decision-making agencies to a participatory approach; 2. commitment of all stakeholders; 3. urgency for
resolution of an issue or issues; (4) absence of fundamental value differences; and (5) existence of feasible solutions. In their view, the challenge is whether pre-conditions are met sufficiently to allow a participatory process to begin.

(Gunton & Day, 2003, p. 13)

Missing, however, is an effort to evaluate these pre-existing capacities in watersheds in Canada and if not present, how to develop them.

As Swatuk (2005) argues, implementing new institutions and new ideas is political and typically requires at least one actor group giving up some power. These shifts take experimentation and risk. Actors are required to interact in new ways, reflect and show a willingness to reframe problems by trying to understand others’ perspectives. But one of the challenges with some existing collaborative governance processes then is not just the power asymmetries, but also that these processes require actors to be skilled at these types of interactions, experimentation, and knowledge integration. One process that has been deemed useful by scholars for building such capacities is referred to as social learning (Folke et al., 2003; Mostert et al., 2008; Muro & Jeffrey, 2008; Reed et al., 2010). However, more applied research is needed to explore how these processes can be developed and evolved for collaborative watershed governance.

Social Learning

Social learning has become both a tool and a process for fostering collaboration, however social learning is actually a very natural process that can occur any time diverse actors work together and share their perspectives (Mostert et al., 2008). Social learning developed as a response to positivist approaches to resource management, which failed to effectively address the complex nature of socio-ecological systems (Muro & Jeffrey, 2008). The theory of social learning has developed over time, taking ideas from different learning theories and social science disciplines (Muro & Jeffrey, 2008). Most widely cited as having its roots in Bandura’s, “social cognitive theory,” where individuals learn by observation and imitation of others. Social learning was first defined by Miller and Dollard in 1941 with their suggestion that “individuals observe the behaviour of others, transform it into cognitive representations and execute the behaviour if it is associated with benefits” (as cited by Muro & Jeffrey, 2008, p. 327).
Bandura put forward one of the most comprehensive theories of social learning inspired by this definition, but this original version placed emphasis on the individual rather than on the group (Mostert et al., 2007). Later research determined that Bandura’s definition does not account for all of the learning processes experienced in resources management (Pahl-Wostl & Hare, 2004). Therefore, organizational learning theories and social theories continue to contribute to social learning theory by helping to reveal insights about group-learning processes (Pahl-Wostl & Hare, 2004; Reed et al., 2010).

Most widely cited is the work of Wenger, who contributed the key concept of “communities of practice” (Ison & Watson, 2007; Muro & Jeffrey, 2008; Pahl-Wostl & Hare, 2004; Reed et al., 2010; Steyaert & Jiggins, 2007). This concept emphasizes the learning that occurs when individuals participate in certain group activities or endeavours (Pahl-Wostl et al., 2007). “Participation...refers not just to local events of engagement in certain activities, but also to a more encompassing process of being active participants in the practices of social communities and constructing identities in relation to these communities,” (Muro & Jeffrey, 2008, p. 328). Individuals learn through their communities of practice but also influence them, and in this way the group is not a collection of individuals pursuing their own interests, but are contiguous. Furthermore, neither individuals nor groups remain static but are a dialectic, evolving “community.”

Water governance scholars have sought to leverage this natural process by trying to identify which conditions and elements of group processes contribute the most to social learning or inhibit it. Some common elements that have been identified are:

- **Communication:** Unrestrained thinking, open communication, development of informal and formal relationships, opportunities to learn to work together,
- **Reframing Processes:** Acknowledgement and use of multiple sources of knowledge, shared problem identification, respect and understanding of the actors’ interdependence, understanding of the complexity of the management system, and awareness of each other’s similar and differing goals and perspectives
- **Legitimacy:** Transparency, trust, opportunities to influence the process
- **Facilitation:** Facilitated, small group work, repeated meetings; creation of an egalitarian atmosphere, development of frameworks and interventions for conflict management, and development of ground rules for sustained interaction. (Craps, 2003; Muro & Jeffrey, 2008; Pahl-Wostl & Hare, 2004; Schusler, Decker, & Pfeffer, 2003).

Social learning in water governance research has been paramount for beginning to understand how to best develop and apply collaborative governance systems involving
multiple and diverse actors. As previously stated, much of this work has been fuelled from the European Water Framework Directive (EWFD), which signalled a major transition in water governance in Europe towards adaptive management and concepts of IWRM (Pahl-Wostl et al., 2007). Understanding of social learning and water governance can be partly credited to researchers associated with the HarmoniCOP project, which was created in support of the EWFD. These researchers include Pahl-Wostl and her collaborators, who have designed a framework in which to foster social learning for river basin governance. Subsequent research has used case studies from the European Union (EU) to test these theories in practice (Mostert et al., 2007; Pahl-Wostl et al., 2007; Tippett, Searle, Pahl-Wostl, & Rees, 2005).

Studies in the EU, along with other social learning research in the South Pacific (Australia and the Solomon Islands) also focus on developing, improving, implementing and assessing frameworks for social learning and participatory processes as part of initiatives to transition to IWRM. (E.g.: Bos, Brown, & Farrelly, 2013; Dionnet et al., 2013; Hoverman, Ross, Chan, & Powell, 2011; Keen & Mahanty, 2006; McCarthy, Crandall, Whitelaw, General, & Tsuji, 2011; Mostert et al., 2008; Pahl-Wostl, 2007, 2009; Pahl-Wostl et al., 2007; Raymond & Cleary, 2013). In these parts of the world, there is a concerted effort to develop and apply IWRM approaches to governance and much of the social learning and water governance studies focus on development of these concepts and tools. These studies are often funded by governments or institutions who wish to transition to more collaborative processes and experiment with innovative governance arrangements.

Furthermore, while the majority of studies address social learning in river basin management in European river basins, far fewer studies focus on river basins in developing or colonial countries (Australia Bos et al., 2013; Raymond & Cleary, 2013 and Solomon Islands: Hoverman et al., 2011; Keen & Mahanty, 2006), where all actors may face heightened or unique challenges due to widely differing knowledge and perspectives, adversarial historical relationships, or other institutional barriers to participatory processes (Hoverman et al., 2011). This thesis attempts to address the above gap, by exploring how the above concepts of collaborative water governance and social learning apply in a colonial context, involving diverse actors, who have distinct
perspectives, interests and ways of knowing. In the next section, I offer a discussion of the colonial setting of water governance in BC.

Colonial context of Water Governance in BC

Upon settling in Canada, Europeans found, “free, vibrant, sovereign Indigenous nations with complex forms of social and political organization[s],” (Tully, 2000, p. 38). At first contact, Europeans drew on the extensive knowledge of the First Nations people to aid in their mission of obtaining fish, whales and fur (Coates & Carlson, 2013; Miller, 2004). As settlers adapted to Canada, they no longer depended on First Nations in the same way and began to expand settlements, infringing on the large tracts of land needed for the First Nations way of life (Coates & Carlson, 2013; Miller, 2004). Through disease, violence, war and increasing efforts to assimilate First Nations into settler society, Indigenous populations were decimated (Coates & Carlson, 2013; Miller, 2004).

In the nineteenth century, the colonial government was in full assimilation mode, seeking to eradicate First Nations’ cultural identities and practices British settlers’ (Miller, 2004). A primary mechanism for formalizing ideas of assimilation was through the introduction of various legislative acts that created a legal structure that favoured and gave dominance to the colonial powers (Miller, 2004). For instance, the Gradual Enfranchisement Act of 1869, the Indian Act of 1876 and the Indian Advancement Act of 1884 outlined ways that the department could disrupt and undermine First Nations sovereignty (Miller, 2004). One example included granting the Department of Indian Affairs (DIA) officers the right to overturn any decision that a group made and the right to remove “life chiefs” (Miller, 2004). Residential schools and forced adoptions shattered families, resulting in psychological, sexual and physical abuse of several generations of children (Grant, 1996). As a result of the assimilatory policy initiatives, Indigenous social, political and economic institutions do not exist as they once did, resulting in severe consequences for the health, identity and continuity of Indigenous communities (Corntassel & Holder, 2008). These experiences have created mistrust and resentment towards non-Indigenous peoples, a relationship that today still needs healing (Alfred, 2005).

In particular, the Indian Act (1876) has shaped Indigenous governance in its present form. It requires Indigenous communities to use an imposed system of governance based
on the democratic election of a chief and council, mirroring the colonial government structures (Miller, 2004), acknowledging their authority to make bylaws on limited matters (Cornell, Curtis, & Jorgensen, 2004). But, across Canada, First Nations are trying to rebuild their systems of governance and government and there are various schools of thought on how that should be achieved (e.g. Alfred, 2005; Cairns, 2011; McGregor, 2011; Miller, 2004; Ransom & Ettenger, 2001).

The United Nations Declaration on the Rights of Indigenous Peoples states that, “Indigenous peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development,” and in article three, “in exercising their right to self-determination have the right to autonomy or self-government in matters relating to their internal and local affairs,” (United Nations, 2007, p. 4). Although Canada has never signed the United Nations declaration, the legal landscape in Canada has recently been changing, as Aboriginal people attempt to re-assert their right to self-determination. Understanding Aboriginal peoples’ changing relationship with Canada is necessary to understand what role they have in BC’s current water governance framework. In the following section, I describe shifts in the legal landscape in Canada that are increasingly recognizing Aboriginal rights.

Shifting ideas of Aboriginal Rights and Title

Since the 19th century, Aboriginal peoples have been gradually stripped of their rights, abilities to self-govern and to carry out cultural practices (Coates & Carlson, 2013). During the past few decades, however, Aboriginal peoples have slowly been fighting to regain their lost rights through a series of cases brought to the Supreme Court of Canada (Coates & Carlson, 2013). With each court case, more clarity is brought to what Aboriginal Rights and Title are, and what the Crown’s obligations and responsibilities are surrounding those Rights and Title.

In Canada, many scholars have noted that Indigenous peoples have rights that are *sui generis*, “i.e. a distinct set of inherent rights that existed prior to European settlement,” (von der Porten & de Loë, 2013, p. 150) and are acknowledged in section 35 of Canada’s Constitution (*Constitution Act*, 1982). Aboriginal title is now recognized in most of BC, except for those nations who have not entered into land claim agreements or treaties
extinguishing their title (Smith, 2013). Very generally, Aboriginal Rights are defined as a First Nation’s right to engage in a site-specific activity, such as fish salmon in a particular area, whereas Aboriginal Title refers to a First Nation’s right to the land itself, including the right to govern the land. Until 1973, it was the Crown’s position that their Aboriginal Title did not exist in Canada, but with the Supreme Court of Canada’s decision in the Calder decision, the Crown was forced to change its position and accept that Aboriginal Title does exist (Calder vs. Attorney-General of British Columbia, 1973). It was not until 2014, however with the SCC ruling in the Tsilhqot’in case, that the first case of Aboriginal Title was asserted (Tsilhqot’in Nation v. British Columbia, 2014).

The Crown’s Duty to Consult and accommodate is recognized under section 35(1) of the Constitution Act of (1982). The source of the duty is in the Crown’s obligation to act honourably with Aboriginal Peoples, also known as upholding “the honour of the Crown,” the Crown being the state, including Federal, Provincial and Territorial governments (Morellato, 2008). The duty to consult cannot be passed to third parties, although it has been established that procedural aspects of consultation may be passed to third parties, which has allowed for the duty to consult to be passed to resource extraction companies—now the norm in Canada (Fortier, Wyatt, Natcher, Smith, & Hébert, 2013).

Court cases brought to the Supreme Court of Canada have clarified the meaning of Aboriginal Title and Rights in Canada. Through these cases, the Crown’s duty to consult and accommodate is slowly becoming clearer. The Canadian Supreme Court defined consultation and accommodation through the Haida and Taku River cases (Trosper & Tindall, 2013). As it stands, the Crown must consult with any First Nation whose rights or title may be infringed upon through activity (Passelac-Ross & Smith, 2013). Aboriginal and treaty rights are not absolute and the Supreme Court has established that infringement of Aboriginal and treaty rights can be justified if there is substantial benefit to the public, including economic development (Passelac-Ross & Smith, 2013). The level of consultation and accommodation that a Crown must undertake is based on the strength of claim that the First Nation has, and on the risk of harm of the proposed activity (Passelac-Ross & Smith, 2013). The state, whether it be Federal or Provincial holds the same Duty to Consult with Treaty nations as it does with nations holding Aboriginal title, as established by Dlegamuuk (Smith, 2013, p. 105).
Regional Water Governance Case Study: The Horn and Liard River Basins

FNFN has clearly articulated their desire to have a role in water governance claiming their interest in collaborative water governance arrangements, where their perspectives and knowledge would influence the decisions affecting their land. I first learned of the issues facing FNFN in September 2012, during the start of this Master’s program when I attended a meeting with Lana Lowe, the Director of FNFNLD. At that time, FNFNLD was in the process of creating a Water Management Strategy Plan, an initiative that tied in with their newly created Strategic Land Use Plan (FNFNLD personal communication, September 18, 2013). These plans were fuelled by concerns surrounding water contamination and extreme water withdrawals after the recognition that the increased “unconventional” or shale gas activity that had occurred over the past six years was not going to be temporary (FNFNLD, personal communication, September 2013). Both of these plans were created with an urgency to counter the status quo model of governance that left FNFN without a meaningful role in decision-making. Instead of a defensive role - one of appealing permit applications - FNFN had decided to put forward their own vision with the goal of requiring industry to tailor its activities to Indigenous plans, thus reversing the present system.

The water management strategy had been moving forward quickly due to a recent push from the provincial government to engage in negotiations over water, for which FNFN wanted to be prepared (FNFNLD, personal communications, April 5, 2013). Previously, a consultation agreement was signed regarding oil and gas, but water was left out of the agreement, mainly due to FNFN’s insistence on a cumulative impacts study and more time and resources to form a water management strategy (FNFNLD, personal communication, February 27, 2013). FNFN was eager to adopt a collaborative water governance model, however efforts to engage with industry and the provincial government in the past had been a frustrating process for FNFN (FNFNLD, personal communication, February 27, 2013).

The Fort Nelson First Nation: A Treaty 8 nation

FNFN, a signatory of the Treaty 8 agreement, has traditional territory in the Horn River and Liard River Basins (Gale, Fort Nelson First Nation, & Gale, 2013). Their traditional way of life and right to govern resources are legally protected (e. g. the
inherent rights to self-govern of section 35 of the Constitution Act of 1982, see the Government of Canada's Approach to Implementation of the Inherent Right and the Negotiation of Aboriginal Self-Government 1995; Treaty 8 see: Fumoleau, 2004, p. 69 and 74; Mikisew Cree First Nation v. Canada 2005 S.C.C. 69; and West Moberly First Nations v. British Columbia, 2010 BCSC 359), however the existing Water Sustainability Act (2014) and current water governance practices largely fail to acknowledge these rights as they were agreed upon at the time of signing (Asch, 2014; Parfitt, 2011).

FNFN is a Cree and Dene nation, made up of ten main family groups (Fort Nelson First Nation, 2013). Prior to contact with European settlers, they lived and travelled freely through their traditional land, which spans an area of 9752.6 hectares in northeast BC (AANDC, 2012). Historically the nation moved among ten village sites on seasonal rounds to hunt, fish, trap and gather, travelling by boat along the river, dog team on the snow, and horseback or foot on land.

**Figure 1 FNFN Territory and Gas Fields**

*Source: Fort Nelson First Nations Lands Department*
The meaning of “Treaty”

The previous section’s literature review offered a broad overview of the evolving relationship between Aboriginal Peoples and Canada to offer a context to Aboriginal Peoples participation in the current water governance framework. To understand the relationship at a finer scale, this section explores the relationship between FNFN and Canada through a discussion of their Treaty 8 agreement. Key to understanding the context of water governance in the Horn and Liard River Basins is the colonial treaty relationship that developed between FNFN and the Crown. The treaty relationship was an agreement that dictated the terms on which British Settlers could live on the land of FNFN, including who has the authority to govern the land and water. While the provincial government has developed a governance framework based on the understanding that they have the right to govern land and water, that understanding is not shared by FNFN. Both actors’ perspectives of what was agreed to in Treaty 8 will be discussed.

In the 19th century, in influx of British people arrived in Western Canada seeking economic opportunities (Fumoleau, 2004). As a representative of the British Crown, the Federal Government was later encouraged to sign treaties with the Indigenous people in the area, first due to the belief of oil reserves in the area, and second by the prospects of gold (Fumoleau, 2004). Negotiations between Commissioner Morris and a number of Chiefs occurred across the country in what is known as, “the numbered treaties” (Fumoleau, 2004). In FNFN’s land, this was called, “Treaty 8” (Fumoleau, 2004). The treaty formalized the relationship between First Nations and the Queen, or in her place, “the Crown,” (Fumoleau, 2004). FNFN understand this treaty as a treaty of “peace and sharing,” to acknowledge that both First Nations and settlers could share the land in peace (Fumoleau, 2004; Fort Nelson First Nation, 2013).

Since the signing of Treaty 8 in 1899, there have been conflicting interpretations of what the agreement involved. According to Asch (Asch, 2014), Treaty 8 was understood by both as an agreement that First Nations gave settlers permission to use the land, not to own it, and in return, the Crown offered First Nations protection and a guarantee that no impact on First Nations traditional life would come from signing this agreement. They promised that, if anything, First Nations would benefit from the agreement (Asch, 2014).
By offering tools in support of foraging and agricultural activities, a one-time allocation of reserved land, a school, and a larger commitment to protect Indigenous people’s economic well-being by gifting each citizen with an annual payment of five dollars to every First Nations person, forever, the Crown seemed to be sincere (Asch, 2014). The understanding was apparently that these privileges were not in exchange for ownership of the land, but offered on top of what First Nations already laid claim to (Asch, 2014). However, the Crown, since then, has treated the Treaty as one of extinguishment of title, rights and concession of land, but allowing Treaty 8 nations to hunt, trap, gather and fish (Booth & Skelton, 2011c; Olthuis, Kleer, 2012; Smith, 2013).

Some scholars support the Crown’s position, relying on the written text of the treaty as proof that the First Nation representatives who signed the Treaty shared the Crown’s understanding of the agreement. However, other scholars, historians and First Nations’ oral histories, tell a different story (Fumoleau, 2004). They use affidavits, written narratives of what was agreed upon orally, and Commissioner Morris’s own published account of what occurred, to convey the spirit and intent of the written treaty (Fumoleau, 2004). Through these accounts, these scholars, historians and First Nations argue that it was largely the Treaty Commissioner’s verbal promise that Treaty 8 nations would be free to hunt, trap and fish for a living and that they would be free to live as they always have that convinced the nations to sign the treaty (Fumoleau, 2004) and (Webb, 2010). Although not included in the written text of the Treaty or in the report of the treaty commission, this was well understood by the Treaty Commissioners, historians and Treaty 8 nations (Webb, 2010).

The question of which rights and title Treaty 8 protects and which rights and title have been extinguished directly relate to the governance of Treaty 8 land and resources today. Without a shared understanding of who has the right to do what on the land, tension over resource use development has ensued. As was discussed earlier, this tension has arisen many times over the past few decades through a series of cases brought by First Nations to the Supreme Court of Canada, which have clarified Aboriginal rights and

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6 The Fort Nelson First Nation is one of several BC First Nations who signed Treaty 8 with Canada in 1899. Most BC First Nations though, have not signed treaties, save for some First Nations on Vancouver Island who are part of the Douglas Treaties.
title to land and resources and clarified the Crown’s obligations and responsibilities in relation to those rights and title (Morellato, 2008).

**Natural Gas Development in the Horn and Liard River Basins**

Due to the large amounts of water needed for the development of natural gas reserves and the associated risks to water quality, oil and gas activities have highlighted tensions over the governance of water in the region. Consultation on oil and gas projects in BC does not occur on an industry or project basis, but instead occurs at the permit level, whether for a road, well pad or water license. These decisions affect the entire ecosystem, and therefore water. Water governance then, occurs not just when decisions on water allocation for hydraulic fracturing are made, but also in the decisions made across the land base. The following discussion introduces recent natural gas development in the Horn and Liard River Basins, before delving into how consultation with First Nations on oil and gas activities occurs.

![Figure 2 Shale Plays: Horn River Basin and Liard River Basin](image_url)

*Source: Fort Nelson First Nations Lands Department*
The development of “unconventional” gas reserves in BC over the past decade has become economically viable through advances in extraction technology, mainly hydraulic fracturing, commonly known as fracking, and multi-directional horizontal drilling. As in many jurisdictions in the United States and Canada, the unconventional gas industry has developed very quickly in BC, before concerns about risks and impacts of an unconventional gas industry have been properly assessed (Konschnik & Boling, 2014; Moore et al., 2014; Stefik & Paulson, 2011).

In order to access global demand and higher gas prices, BC introduced a plan in 2012 to export natural gas to Asia, requiring the creation of new infrastructure: a pipeline to transport natural gas to the western coast, and LNG facilities to transform the gas so that it can be shipped in tankers across the Pacific Ocean to Asia (Ministry of Energy and Mines, 2012). The BC Liberal government was elected on the LNG platform (Hunter, 2013; Mackin, 2013; D. Moore, 2013) stating in the BC Jobs Plan (2012), that by 2020 they would have three LNG plants built and fully operational (BC MEM, 2012). Besides being politically committed to the development of LNG in general, the provincial government has also committed to developing LNG as quickly as possible. The provincial government describes LNG as a small-window of opportunity, as there is a global race to be the first to market and capture global demand (Mason, 2014; Palmer, 2013). LNG proponents have indicated that industry can go elsewhere, so the Province must ensure that industry stays here and chooses to strike a deal with the provincial government (CBC News, 2013; Hoekstra, 2013; Jang, 2014).

This attitude is reflected in recent changes to Federal and Provincial law, reducing the trigger thresholds of environmental assessments in order to hasten the regulatory process so industry can continue as fast as possible (Amos & Miron, 2012; BC MEM, 2012; Heelan, 2013; Mason, 2014; May, 2012; West Coast Environmental Law, 2012). The development of the regulatory framework for unconventional gas has not developed at an equal pace with the industry, resulting in regulatory gaps that do not account for all of the associated impacts of unconventional gas (Konschnik & Boling, 2014; Moore et al., 2014; Stefik & Paulson, 2011). While the environmental assessment framework includes consideration of pipelines and gas processing plants, the upstream impacts
caused by the development of unconventional gas reserves are not rigorously assessed (Council of Canadian Academics, 2014; Garvie & Shaw, 2014). These upstream impacts are particularly felt by First Nations, given that their traditional territory lies upstream in the Horn River shale gas play.

The Horn River Basin is one of two large shale gas plays in BC and the exploration of shale gas indicates a significant economic opportunity for the province of BC (Parfitt, 2011). Its remote location and the provincial government’s “lack of information-sharing and public consultation,” (Parfitt, 2011, p. 5) make exploration effectively invisible to most of the province and the rest of Canada. While economic opportunity is the driving factor of development, questions about the environmental effects of this activity must be rigorously assessed. Scholars have raised a lengthy list of serious and diverse concerns such as: sour gas, accidental chemical spills, the land footprint of drilling activities, carbon dioxide and methane emissions caused by the extraction and processing of natural gas, earthquakes caused by fracking, air pollution, water contamination and hazardous gas from undisclosed chemicals used in the fracking process, and the effects of huge water surface and groundwater withdrawals on the ecosystem (Colborn, Kwiatkowski, Schultz, & Bachran, 2011; Finewood & Stroup, 2012; Rahm, 2011; Schmidt, 2011).

Recently, the Fort Nelson First Nation has raised similar environmental concerns with industry and the provincial government and demanded that their rights to consultation on oil and gas activities on their land be honoured (“Fracking Water License Process Angers BC First Nation,” 2012; Hume, 2012). Between 2005 and 2008, oil and gas companies bid for land tenures in northeast BC peaking in 2008, when producers paid a total of $2.66 billion in bonuses for petroleum and natural gas rights to the Crown (Adams, 2012). By 2010, 75% of the land tenures were sold in the Horn River Basin and industry had moved on to the Liard Basin (Adams, 2011) without the consent of First Nations. In fact, according to FNFN, they were not informed that sales were occurring nor were they cognizant of what unconventional gas hydraulic fracturing was until 2008, when they had a meeting with industry (Garvie, 2013).

7 In addition to environmental concerns from hydraulic fracturing, many others have expressed concern about the potential social and health impacts (See: Howe, 2006; Jacquet & Stedman, 2013; Measham & Fleming, 2014; OCMOH, 2012; Putz, Finken, & Goreham, 2011; Rafferty & Limonik, 2013)
After tenure is purchased, industry proponents apply for further permits to develop the land, which may trigger an Environmental Impact Assessment if it is a pipeline or gas processing plant, or the OGC’s permit-by-permit consultation process. The Province of BC gives funding to Lands Departments to participate in consultation, on a base level and $700 for each wellhead permit application (Garvie, 2013). No funding was provided for permits such as roads, borrow pits or section 8 short-term water permits (Garvie, 2013). FNFNLD currently receives an average of 1,000 referrals per year from proponents and the Crown, with windows for comment of between 5-20 days (Garvie, 2013; Fort Nelson First Nation, 2013). While FNFN’s capacity has grown and they are now able to participate more fully in consultation, in 2008/2009, FNFNLD staff was small and unfamiliar with unconventional gas development (Fort Nelson First Nation, 2013).

In the short time that unconventional gas has been developed in northeast BC, the landscape across the region has been intensely industrialized with additional potential threats to wildlife, risks to water quality and quantity and a continued high greenhouse gas emission, should development proceed to full capacity (Garvie, Lowe, & Shaw, 2014). According to Garvie and Shaw (2014) First Nations, researchers and non-governmental organizations have called for baseline studies and cumulative environmental impact assessments of the oil and gas industry in northeast BC (BC Assembly of First Nations, 2012; Campbell & Horne, 2011; Gale, 2013; Garvie et al., 2014; Parfitt, 2011; West Coast Environmental Law, 2004).

Despite the various environmental concerns discussed in the literature about hydraulic fracturing in BC (and elsewhere, such as in the USA), critics maintain that the provincial government has not adequately responded to these concerns (Hume, 2012; Parfitt, 2011). Furthermore, for First Nations’, the only pathway for expressing these concerns is through the Oil and Gas Consultation process, which, as Booth and Skelton (2011c) have documented, is deemed inadequate from a First Nations perspective (Booth & Skelton, 2011c). An overview of the consultation process is given in the following section.

According to BC’s National Gas Strategy (2012), shale gas development will continue aggressively, in order to meet BC’s goal of becoming a global leader in natural gas and to provide BC with a stable source of economic growth (Ministry of Energy and...
With development surging forward, FNFN is left scrambling to build political power and capacity to have equal decision-making power in the governance of resources in the region.

**Upholding the Crown’s Duty to Consult: Natural Gas and Water governance in BC**

Previous sections of this research context section have provided an overview of FNFN and natural gas development in BC. I join these themes with the literature review to shed light on how consultation with First Nations occurs within the current water governance framework in BC. This understanding is important for the subsequent discussions about the inclusion of First Nations in water governance of Chapter 2 and 3.

First Nations have a legal right to participate in consultation processes included in provincial and federal Environmental Impact Assessment (EIA) processes which are triggered by permits to build pipelines, gas processing plants, and permanent water licenses (Morellato, 2008). However the streamlining of regulation and the dispersed nature of natural gas development has resulted in few EIAs being triggered (Garvie, 2013). Smaller, individual permits related to supporting these pipelines and processing plants, such as well pads, roads and section 8 withdrawals, fall below the EIA threshold, so their associated impacts are not assessed, despite being technically included in the Oil and Gas Commission’s (OGC) First Nations consultation process (Moore et al., 2014). Since no environmental assessments are occurring for this “upstream” development, environmental impacts are not being adequately considered in decision-making.

Although the Supreme Court of Canada established that the Crown holds a Duty to Consult with Treaty Nations, the Crown has had varying interpretations of what that duty entails and when it should be discharged (Asch, 2014; Fort Nelson First Nation 2013; Kempton, McClurg, & Townshend, 2014). Many First Nations and others find that, in general, the Crown’s interpretation and implementation of the Duty to Consult has been inadequate (Garvie & Shaw, 2014; Tang, 2014). For instance, and in order to illustrate this inadequacy, the Oil and Gas Commission’s consultation process is triggered when a company submits an activity permit application. First Nations have a short time period of

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8 The Oil and Gas Commission has authority to issue Section 8 water withdrawals from rivers, lakes or dugouts for an oil and gas activity. Section 8 withdrawals are short-term water permits, which used to be issued for periods of up to two years, but since 2013 can be issued for a maximum of one year, although they can and commonly are renewed (BC Oil and Gas Commission, 2013a).
5 to 20 days to comment on the application and to raise concerns (Garvie, 2013). If concerns are raised, the OGC and the First Nation discuss mitigation options, usually through written or telephone communications and these options are forwarded to the statutory decision-maker who will suggest mitigations (Garvie & Shaw, 2014; The Province of British Columbia & Fort Nelson First Nation, 2012). If the First Nation is not satisfied with the mitigations, a resolution process is triggered, extending the decision-making timeframe and providing a meeting between the OGC’s First Nations Liaison Officer (FNLO) and the OGC area director, and then with the First Nation Chief and OGC Commissioner, if required (Garvie & Shaw, 2014; The Province of British Columbia & Fort Nelson First Nation, 2012). The OGC then forwards a letter to the statutory decision maker explaining how First Nations concerns have been addressed and the statutory decision-maker (SDM) will make a decision (Garvie & Shaw, 2014; The Province of British Columbia & Fort Nelson First Nation, 2012). In this way, the OGC sees itself fulfilling its duty to consult as required by the *Oil and Gas Activities Act* (2008).

This process has become a source of frustration for First Nations because, first, they are usually the group that initiates the resolution process and second, when the decision comes to the SDM, it almost always is approved. In fact, the Halfway River oil permit is commonly referred to by BC First Nations as the only known instance where an oil and gas permit has not been approved on the basis of an objection from a First Nation (Garvie & Shaw, 2014). Between May 2011 and April 2012 alone, northeast BC First Nations received 3,882 oil and gas permit applications. In 2011 FNFN processed 646 oil and gas permits (Garvie, 2013). According to First Nations, when the SDM makes a decision, a letter of rationale is sent to them listing vague reasons. The process, information and tools used by the SDM in decision-making is not transparent; that is, it is unclear how the First Nation input is used or considered (Moore et al., 2014). Without such transparency, First Nations cannot know if and how their concerns were assessed.

Consultation and the duty to consult as interpreted by the provincial government and the OGC, does not include First Nations in decision-making early enough or adequately enough for them to have meaningful input. As a result the duty to consult is considered an “institutionalized and inevitable failure” (Booth & Skelton, 2011c, p. 698) that is a
barrier for the advancement of more collaborative processes. While the legal obligation of the duty to consult guarantees First Nations a voice, there is nothing in place that guarantees that voice will impact decision-making.

**Conclusion**

It is widely thought that sustainable water governance requires collaboration and knowledge of a wide range of actors. At the same time, First Nations in BC have clearly articulated their goals of self-determination and their right to have a meaningful role in the governance of their land and resources, including water. Recent trends in water governance aim to achieve the first goal of collaboration of diverse actors and types of knowledge, but which largely fail to achieve the second goal. BC is primed for a significant expansion of the shale gas industry requiring high quantities of water from First Nation land. BC is also seeing an increased recognition of First Nations’ rights. I argue that before decision-making can be truly shared with First Nations in a meaningful way, proper care must be taken to consider the colonial history of BC and the consequent barriers it creates for collaboration within BC water governance. In Chapter 2, I discuss these themes and find that barriers to collaboration create a check-box consultation process because of lack of reframing processes, lack of neutral facilitation and the consultation process’ lack of legitimacy. In Chapter 3 I examine an emerging water governance innovation occurring between FNFN and the oil and gas industry and consider the extent that it includes FNFN and their ways of knowing. An exploration of these themes will be relevant to all interested parties in on-going efforts to develop equitable, respectful and collaborative arrangements among Indigenous people, the state and industry.
Chapter 2: Colonial constraints on social learning

Introduction

Under the banner of different terms, such as collaborative governance, Integrated Water Resources Management (IWRM), and adaptive co-management, efforts have been mounting in recent decades to recognize that resolving many of the problems within the water sector requires bringing people together (Armitage, 2008; Biswas, 2004; Bouwen & Taillieu, 2004; Folke et al., 2005; Hoverman et al., 2011; Kapoor, 2001; Tortajada, 2010). Regardless of the terminology, the main premise is that these efforts will create opportunities for groups to learn together to build a shared understanding of the issues and the potential solutions – that is, to undertake social learning (Mostert et al., 2007; Pahl-Wostl, 2007; Schusler et al., 2003). Social learning is defined as “learning that occurs when people engage one another, sharing diverse perspectives and experiences to develop a common framework of understanding and basis for joint action,” (Schusler et al., 2003, p. 311). Social learning is believed to foster “stakeholders’ understanding of system complexity, recognition of mutual dependence, appreciation of others’ perspectives, and development of the capacity to work together and to create mutual trust,” (Hoverman et al., 2011, p. 1).

Social learning in water governance can be traced back to Bandura’s, “social cognitive theory,” which was based on the way that individuals learn through observation and imitation of others (Pahl-Wostl & Hare, 2004; Reed et al., 2010). Bandura’s individual-focused definition was later applied to organizational learning theories and social theories, contributing to social learning theory by revealing insights about group-learning processes (Pahl-Wostl & Hare, 2004; Reed et al., 2010). However, social learning research in the field of water has predominantly occurred in European settings where there is a deliberate effort to experiment with innovative governance models under the European Water Framework Directive (See Ison & Watson, 2007; Mostert et al., 2007; Pahl-Wostl, 2007; Pahl-Wostl et al., 2007). Questions remain about the

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9 Chapters 2 and 3 were written with the intention to be published separately in academic journals. As such, some elements in these chapters are repeated, such as parts of the introduction, research context and method. In preparation for publication, I expect that these chapters will be revised appropriately for the chosen journal, in collaboration with Dr. Michele-Lee Moore and a representative from FN FN.
transferability of the current research findings and the potential to foster social learning in developing or colonial countries.  

Currently in Canada, significant efforts are underway to explore the possibilities of developing shale gas for liquefied natural gas (LNG). The process of accessing shale gas for LNG requires large amounts of water that is used in combination with sand and chemicals to fracture underground shale rock structures, releasing gas that is then captured. The wastewater produced during hydraulic fracturing is potentially hazardous, as it contains hydrocarbons, chemicals and a variety of other harmful substances that could be leached from the shale rock (Council of Canadian Academics, 2014).

The result is growing discontentment across communities in Canada about the use of water for this purpose. However, shale gas reserves represent a significant economic opportunity for the provincial government, industry and communities. The tension between economic benefits on the one hand and environmental and health risks on the other creates conflict among water basin actors. This is seen in the Horn and Liard River Basins in British Columbia — a remote region in the northeast of the province.

While it is possible that collaborative processes that enable social learning could be a useful tool to ensure that water basin actors begin to share perspectives and move towards alternative paths forward for governing water in BC, questions remain about the implications that the colonial context of BC has on creating the conditions necessary for social learning to occur. Therefore, this research examines the current governance processes of shale gas and water in northeast BC and assesses the potential opportunities and barriers for fostering social learning among actors. To achieve this goal, an overview of social learning research in water governance is presented outlining the need for more research in colonial contexts. Then, the political economy of BC is described in the context of the development of shale gas in northeast BC, current governance processes of water and shale gas and First Nations consultation. After describing the governance

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10 Colonial is used here in terms of settler colonialism in Canada where Indigenous people of Canada were colonized by large numbers of European settlers, taking up Indigenous land, altering the existing social structures, government and economy, while maintaining allegiance to their European homeland, which claims sovereignty over the newly settled land (Freeman, 2010).
context, the case study of Fort Nelson First Nation is introduced, including a discussion on understandings of the treaty relationship. Indigenous and grounded theory methodologies are employed to conduct and analyze data from semi-structured interviews and participant observation, leading to the emergence of three main barriers of the treaty relationship to foster social learning: problem framing, legitimacy and facilitation. This research addresses the need for experimentation and application of the social learning concept in such a context. This paper builds on the body of social learning literature by examining current governance processes within the treaty nation\textsuperscript{11} of Canada and identifying barriers that are inhibiting social learning from occurring within this context.

**Social Learning**

Social learning has become both a tool and a process for fostering collaboration, however social learning is actually a very natural process that can occur any time diverse actors work together and share their perspectives (Mostert et al., 2008). Water governance scholars have sought to leverage this natural process by trying to identify which conditions and elements of group processes contribute the most to social learning and which inhibit it. Some common elements that promote social learning have been identified as:

- **Communication**: Unrestrained thinking, open communication, development of informal and formal relationships, opportunities to learn to work together,
- **Reframing Processes**: Acknowledgement and use of multiple sources of knowledge, shared problem identification, respect and understanding of the actors’ interdependence, understanding of the complexity of the management system, and awareness of each other’s similar and differing goals and perspectives
- **Legitimacy**: Transparency, trust, opportunities to influence the process
- **Facilitation**: Facilitated, small group work, repeated meetings; creation of an egalitarian atmosphere, development of frameworks and interventions for conflict management, and development of ground rules for sustained interaction.
  
  \cite{craps2003,muro2008,pahl2004,schusler2003}.

The social learning concept in water governance research has been paramount for beginning to understand how to best develop and apply collaborative governance systems involving multiple and diverse actors. As previously stated, much of this work has been

\textsuperscript{11} Canada can be considered a treaty nation just as First Nation signatories of treaties are considered treaty nations. However, it is to be understood that Canada does not have a treaty relationship with all First Nations and many First Nation claims have not yet been settled.
fuelled from the European Water Framework Directive, which signalled a major transition in water governance in Europe towards adaptive management and integrated approaches such as IWRM (Pahl-Wostl, 2007). However, far fewer studies focus on river basins in developing or colonial countries (for exceptions see, Australia: Bos, Brown, & Farrelly, 2013; Raymond & Cleary, 2013; Solomon Islands: Hoverman et al., 2011; Keen & Mahanty, 2006). Yet, all actors in these countries may face heightened or unique challenges due to widely differing knowledge and perspectives, adversarial historical relationships rooted in colonialism, or other institutional barriers to participatory processes (Hoverman et al., 2011). The next section discusses water and shale gas governance in northeast BC by characterizing the political economy in BC and governance processes, including consultation with First Nations.

First Nations, Natural gas and water governance

The current BC Liberal government was elected in 2013 with a clear LNG platform, stating in the BC Jobs Plan launched in 2011, that by 2020 they would have three LNG plants built and fully operational (BC MEM, 2012). Besides being politically committed to the development of LNG, the provincial government has also committed to developing LNG as quickly as possible in order to be a leader in the global market and to capture global demand (BC Ministry of Natural Gas Development, 2014b; Cattaneo, 2014; Mason, 2014; Natural Resources Canada, n.d.; Palmer, 2013; West Coast Environmental Law, 2004; Wyatt, Fortier, & Martineau-Delisle, 2010). Recent changes to Federal and Provincial legislation and regulations reflect the national and provincial governments’ goals of creating a regulatory atmosphere conducive to LNG development (BC Ministry of Natural Gas Development, 2014a; Ecojustice, 2012; Moore, 2013; Prystupa, 2014).

The Oil and Gas Commission (OGC) is in charge of ensuring that the Crown’s duty to consult and accommodate on any oil and gas related activities has been fulfilled, which they do so through Consultation Protocol Agreements (CPAs) negotiated by the Ministry of Aboriginal Relations and Reconciliation (MARR) and each First Nation (BC Oil and Gas Commission, n.d.; Government of British Columbia, n.d.). Provincial and Federal Environmental Impact Assessment (EIA) processes also include First Nation consultation for permits to build pipelines and gas processing plants, however the streamlining of regulations and the dispersed nature of natural gas development means that few oil and
gas projects will be likely to trigger an EIA (Gibson, 2012). Smaller individual permits related to supporting these pipelines and processing plants, such as well pads, roads and short-term water permits known as “section 8s,” fall below the EIA threshold, so their associated impacts are not included in assessment (EIA processes have been discussed in depth elsewhere. See: Booth & Skelton, 2011a; Garvie, Low, & Shaw, 2014; Haddock, 2010; Officer of the Auditor General of BC, 2011).

In the short time frame that shale gas using water-intensive hydraulic fracturing has been developed in northeast BC, the landscape across the region has been intensely industrialized. Should development proceed to full capacity, additional threats to wildlife, risks to water quality and quantity and continued high greenhouse gas emissions are expected (Garvie et al., 2014; Johnson, Ehlers, & Seip, 2015; Stephenson & Shaw, 2013). First Nations, researchers, and non-governmental organizations have called for baseline studies and cumulative impact environmental assessments of the oil and gas industry in northeast BC (BC Assembly of First Nations, 2012; Campbell & Horne, 2011; Gale, 2013; Garvie et al., 2014; Parfitt, 2011; West Coast Environmental Law, 2004). However, currently, the only pathway for First Nations’ to express these concerns is through the OGC’s CPA process, which, scholars have demonstrated is inadequate at meaningfully engaging First Nations (Booth & Skelton, 2011c).

For instance, and in order to illustrate this inadequacy, the OGC consultation process is triggered when a company submits an activity permit application. First Nations have a short time period of 5 to 20 days period to comment on the application and to raise concerns (Garvie, 2013). Representatives from the OGC and the First Nation discuss mitigation options, usually through written or telephone communications and these options are forwarded to the statutory decision-maker who will suggest mitigations (Garvie & Shaw, 2014; The Province of British Columbia & Fort Nelson First Nation, 2012). If the First Nation is not satisfied with the mitigations, a resolution process is triggered, extending the decision-making timeframe and providing a meeting between the OGC’s First Nations Liaison Officer (FNLO) and the OGC area director, and then with the First Nation Chief and OGC Commissioner, if required (Garvie & Shaw, 2014; The Province of British Columbia & Fort Nelson First Nation, 2012). The OGC then forwards a letter to the statutory decision maker explaining how First Nations concerns have been
addressed and the statutory decision-maker (SDM) will make a decision (Garvie et al., 2014). These steps appear to be how the OGC fulfils its duty to consult as required by the Oil and Gas Activities Act (2008).

While the legal obligation of the duty to consult guarantees First Nations a voice, there is nothing in place that guarantees that their opinion will impact decision-making and thus, the process does not provide a foundation for nation-to-nation collaboration, merely basic accommodation. While the Province of BC appears to be meeting their basic legal duty to consult with First Nations, as Booth and Skelton’s (2011c, p. 698) argue, the procedural failures of consultation, “irredeemably damages any opportunity for governments to develop positive relationships with First Nations.” Considering the importance of positive relationships in social learning, there is a need for further inquiry into the implications that this colonial context has on fostering or hindering key conditions of reframing processes, legitimacy and neutral facilitation identified as essential for social learning.

RESEARCH CONTEXT

Fort Nelson First Nation: Overview

FNFN is a Cree and Dene nation, made up of fourteen family groups (Fort Nelson First Nation, 2013). Prior to contact with European settlers, they have lived and traveled freely through their traditional land, which is located in the northeast corner of BC, spanning from the Alberta Border West, beyond Moose Lake, South as far as Freddie Lake and North to the Yukon and Northwest Territories borders (Fort Nelson First Nation, 2013). Historically the nation moved among ten village sites on seasonal rounds to hunt, fish, trap and gather, travelling by boat along the river, dog team on the snow, and horseback or foot on land (Fort Nelson First Nation, 2013).

A Treaty 8 nation

FNFN, a signatory of the Treaty 8 agreement, has traditional territory in the Horn River and Liard River Basins (Garvie et al., 2014). Their traditional way of life and right to govern resources are legally protected (Constitution Act, 1982, s 35; Treaty 8 June 21, 1899).  

12 The Fort Nelson First Nation is one of several BC First Nations who signed Treaty 8 with Canada in 1899. Most BC First Nations though, have not signed treaties, save for some First Nations on Vancouver Island who are part of the Douglas Treaties.
however the current water governance practices largely fail to acknowledge these rights as they tend to be understood by First Nations at the time of signing (Asch, 2014; Parfitt, 2011). The treaty formalized the relationship between First Nations and the Queen, or in her place, “the Crown.” FNFN understand this treaty as a treaty of “peace and sharing,” to acknowledge that both First Nations and settlers could share the land in peace (Fumoleau, 2004; Fort Nelson First Nation, 2013). The understanding was apparently that these privileges were not in exchange for ownership of the land, but offered on top of what First Nations already laid claim (Asch, 2014). However, the Crown, since then, has treated the Treaty as one of extinguishment of title, rights and concession of land, but allowing Treaty 8 nations to hunt, trap, gather and fish (Booth & Skelton, 2011c; Olthuis, Kleer, 2012; Smith, 2013). This difference of opinion has been discussed at length elsewhere (Asch, 2014; Kempton et al., 2014).

**Hydraulic Fracturing**

Between 2005 and 2008, bids by industry proponents for petroleum and gas rights in the Horn River Basin rose significantly, peaking in 2008 (Adams, 2012). By 2010, 75% of land was held in tenure (Adams, 2012). The nearby, pristine watershed of the Liard River Basin was not far behind with tenure sales (Adams, 2011). According to FNFN, they did not hear about what shale gas was, and the techniques used in its extraction until 2008; that is, long after tenure rights had already been granted to companies (Garvie et al., 2014). Since then, FNFNLD, created by the OGC to process shale gas permits, has grown significantly in its size, capacity and ability to participate more fully in consultation processes (Fort Nelson First Nation, 2013). FNFN believe that over the past decade, the exploration and development of shale gas has threatened their traditional way of life at an alarming scale and pace (Garvie et al., 2014). FNFN is concerned that the current governance frameworks surrounding tenure rights and water allocation for hydraulic fracturing is not respecting and protecting their rights, as they believed they were guaranteed by the signing of Treaty 8 (Garvie et al., 2014). Due to the immense pace and scale of the development of shale gas reserves on their land, the different interpretations of treaty rights has become a prominent issue and a major barrier to social learning.
METHODOLOGY AND METHOD

Methodologies
Given the exploratory nature of this study and its focus on Indigenous issues, ideas taken from grounded theory and Indigenous methodologies were deemed appropriate to explore the phenomena of a governance innovation in the context of water used in hydraulic fracturing on FNFN territory. Incorporating Indigenous methodologies (Chilisa, 2012; Louis, 2007; Steinhauer, 2002; Wilson, 2007) into the research design provided guiding principles for conducting research with and for Indigenous people. As is consistent with these guidelines (Chilisa, 2012), the research was designed to combine the worldview of the researcher with the nature of the research problem and the variety of knowledge systems that were relevant to the case study.

A case study is in-depth, focusing on many aspects of a single phenomenon, rather than comparing different instances of a phenomenon across cases (Baxter, 2010). Theory can be generated using a case study by the deeper understanding of the phenomenon that it provides (Baxter, 2010). This deep analysis can contribute to a broader understanding of the studied phenomenon, but the transferability of the case study depends on its rich description (Baxter, 2010). By providing details of the nuances and context of a case study and by providing sufficient explanation of why a phenomenon occurs, future researchers can determine how aspects of the case may or not apply to their own research (Baxter, 2010). Grounded theory and case study methodology work well together, due to the cyclical relationship of starting with a loose hypothesis that is then tested in real life and compared to literature that might contribute to explanations of the real life case.

Indigenous methodology emphasizes that any research, particularly that being undertaken by a non-Indigenous scholar, should first and foremost be undertaken with an attitude of humility, respect and openness (Koster, Baccar, & Lemelin, 2012). This fits with Wilson’s (2007) synthesis of guiding principles, which urges researchers to: conduct all actions with kindness, honesty and compassion; to allow the benefits for the Indigenous community to drive the research; and for researchers to work with a team of Indigenous thinkers. Wilson (2007) emphasizes the importance of the researcher constantly evaluating responsibilities and obligations to the researched, making sure that
those responsibilities are being fulfilled. In line with this thinking, Martin and Mirraboopa (2003) strongly advise that researchers must recognize Indigenous world views, knowledge and realities as distinct and vital to the existence and survival of Indigenous peoples; the social, historical and political contexts that have shaped Indigenous experiences must be emphasized; voices and experiences of Indigenous people must be privileged in the research and lastly, that research should identify and address issues of importance to Indigenous people. Every attempt has been made to accomplish this here, but it is recognized that learning how to practice this well is an ongoing process.

**Method:**

Research methods included semi-structured interviews, participant observation and document analysis. The first point of contact was Lana Lowe, Director of FNFNLD. In keeping with the Indigenous methodological approach, Lana agreed to introduce the researcher to the community and to FNFNLD staff, and provide preliminary suggestions of whom to interview, with the understanding that a basic criteria was that participants were involved with or familiar with water governance in the region: industry proponents, FNFN community members, FNFNLD staff and members of the municipal or provincial government. From there, the snowball technique was used, where one person recommends another to generate more participants. Extensive effort was made to access industry and provincial government perspectives, however only two out of four companies contacted and four individuals from municipal and provincial governments out of the sixteen contacted agreed to interviews. Although some other government members did agree to interviews, the individuals were generally those who were not directly involved with FNFN on shale gas development and water governance in their territory. Some of the provincial government individuals were contacted multiple times. Some responded by forwarding my request to other colleagues or forwarded interview requests to the communications officers. Applicable leads were followed up, but some of those suggested were not relevant to the research or other team members had already contacted them, without receiving a response. Industry members were only responsive when introduced through an introduction by FNFNLD Director Lana Lowe. One individual agreed to do an interview, but upon follow-up was non-responsive. In addition,
during field research, Apache and FNFW were negotiating agreements, and this seemed to contribute to reluctance on FNFWLD’s to make an introduction with Apache. Seventeen semi-structured interviews were conducted between May 2013 and January 2014: three with FNFWLD staff (plus one repeat interview); two with FNFW community members; one with a FNFW councillor; two with FNFW consultants; three with industry proponents; one with an employee of another First Nations band; and four with members of municipal and provincial governments.

The researcher spent six weeks working in FNFWLD in May and June of 2013, participating in and observing day-to-day activities of the department related to consultation and shale gas development, through established methods of participant observation. The researcher attended community events and meetings with the provincial government and industry. Participant observation of events, such as the testimony from an Environmental Appeal Board hearing between FNFW and the Province of BC’s decision to issue a conditional water license to Nexen in October 2013 and January 2014 were also used as sources for data collection. The final written argument as submitted by FNFW was used to supplement data gathered through interviews and participant observation. This document contained written versions of testimony given in the Environmental Appeal Board hearing, scientific reports that the decision to grant a water license was based on, and emails between provincial government members and between the provincial government and FNFW. These documents provided insight into how the Crown carried out consultation with FNFW.

Grounded theory approaches were then followed with an iterative approach to data analysis (Corbin & Strauss, 1990). Interviews were recorded and transcribed as soon after the interview as possible. The researcher wrote personal memos throughout the research period to reflect on the interviews and other events during the data collection period, which informed the research. The interview transcriptions were coded by hand and analyzed following guidelines outlined by (Corbin & Strauss, 1990). The first interview was analyzed using line-by-line coding or open coding. The codes generated in the first interview were used to analyze the second interview and the third interview was analyzed using codes generated in the first and second interviews. Analysis of subsequent interviews continued in this manner. As main codes and emerging themes were
identified, subsequent interview questions evolved to delve deeper into the themes in order to add nuance and test theories about governance processes. After all interviews were analyzed, codes that were generated in the first round of analysis were grouped into themes and subthemes. Although grounded theory uses data to examine subjective understandings rather than focusing on stories and experiences on their own (Suddaby, 2006), in keeping with Indigenous research methodologies (Wilson, 2007), data has been presented verbatim, whenever possible in order to ensure that intent and content of Indigenous voices in particular, remained intact.

**RESULTS AND DISCUSSION**

Social learning is explored in this research as a phenomenon that could provide a pathway or blockage to collaborative governance processes among actors in northeast BC. Earlier in this article, a list of conditions that foster social learning in water governance were presented. Many of the participants of this research touched on the importance of some of these conditions for collaboration to occur. However, a dominant result showed that participants referred back to the treaty relationship between FNFN and Canada as a significant barrier to collaboration and learning. Despite the intention of the legal principle of a “duty to consult,” data from interviews were analyzed to reveal that the existing governance process involving the duty to consult in this case study hinders social learning through three main mechanisms: altering problem framing processes, eroding legitimacy, and not allowing for neutral facilitation. The following section will discuss the barriers to social learning posed by the treaty relationship by presenting findings as a result of data analysis and discussing these findings in reference to relevant literature.

**Problem Framing in Social Learning**

Over the course of this research, it became clear that the provincial government and FNFN held different frames surrounding their view of land and its management. The term, “problem framing” is used in social learning literature to describe an actor’s perspective of an issue (Bouwen & Taillieu, 2004). When actors have distinct frames, a reframing process is a vital tool to create a shared problem frame and to understand the others’ perspectives, fostering social learning (Bouwen & Taillieu, 2004).
A FN FN member explains the different perspectives between their nation and the provincial government:

We look at the development from the big picture, territorial approach, they look at it from permit-to-permit, so for them it's just a little well pad that's not going to impact our treaty rights. For us, we see it as the entire development...it's the well, and the road, and the pipe, and the gas plant, and the water required, and the frack sand mining, and it's...and, if you say yes to the well, then you're saying yes to the road, and yes to the pipe, and everything that's associated...

As part of the treaty agreement, First Nations must participate in consultation procedures in good faith, even when the procedures do not account for their broader perspective (Aboriginal Affairs and Northern Development Canada, 2011). Similarly, the provincial government must also follow consultation procedures in order to ensure their legal duty to consult is met. The Province believes that they are honouring treaty rights as long as they follow the law. An OGC employee explains,

the [Oil and Gas] Commission follows the law, so I think that that's really important to recognize: that we have existing law related to the various... the Water Act, and the Lands Act and OGAA [Oil and Gas Activities Act] and other pieces of legislation that we follow. And, we follow the law. So that's done really seriously here. So when we make a decision...we ensure that we're not doing anything that is illegal or that is not consistent with the legislation...

Even if provincial government officials leading consultation processes understand First Nations concerns about impacts at the landscape level, they must follow the mandate set out by the Crown to consult at the permit level. While differing frames are common among multi-actor governance processes, what is problematic in water governance in BC is the lack of flexibility for reframing the scale of the management decisions related to land and water in the consultation framework (Gray, 2004; Pahl-Wostl, Conca, Kramer, Maestu, & Schmidt, 2013; Pahl-Wostl et al., 2010).

In response to a consultation process that does not account for their own values and perspectives, FN FN has designed its own consultation protocol that reflects their frame (Fort Nelson First Nation Lands Department, 2011). But, one participant commented that their consultation protocol has largely been ignored by the Crown and is not included in
the formal EIA consultation or OGC’s Consultation Protocol process. As a FNFNLD staff laments,

We've been playing the consultation game. We have our consultation protocols and it's not getting us anywhere. That [the existing provincial government consultation] framework is not working. I mean…we've tried to frame our process and protocol and our thinking of how we want to be involved in decision-making through a consultation protocol using consultation law…and all that stuff. But…it doesn't work. It's easily ignored. [The provincial] government falls back on Canadian Law to say that they are doing consultation the way that it’s supposed to be done, and the way that they do it is good enough. And unless we want to go to court and fight ‘em on it, then that's the way it is. So, we…when the decisions are made, we have a choice to make. Do we let it slide and go [shrugs shoulders]? There goes another one? Or, do we take them to court, asserting inadequate consultation? Which, as long as they go through their procedural aspects properly, then chances are we'd lose that case.

This lack of flexibility in consultation that allows for pluralistic framing of problems has resulted in dissatisfaction by FNFN with the way that consultation occurs and the resulting permit decisions. This dissatisfaction leads to conflict, moving the actors involved away from a shared understanding and leaves First Nations with few options beyond pursuing a litigious pathway for inadequate consultation.

For instance, in consultation over a water license with Nexen, FNFN made many requests to meet with the Crown to discuss their understanding of the Treaty rights mostly likely to be affected\(^{13}\). However, the Crown responded with a request for an outline of First Nations concerns specific to the water license\(^{14}\). FNFN eventually appealed the provincial government’s decision to grant the long-term water license, citing inadequate consultation and the case was taken to the Environmental Appeals Board. One of FNFN’s key legal arguments was that official consultation on this license never began, since FNFN and the provincial government never came to an understanding of what the Treaty rights were that were involved. Therefore, the legal team argued that they did not believe that the provincial government was in a position to assess what impacts were to


their treaty rights. That is, the entire “framing” of the problem was not shared or based on FNFN input.

As FNFN understands it, with the signing of the Treaty 8 in 1899, FNFN and the provincial government came to an agreement to live in peace together and share the land laid out in Treaty 8. Others have discussed elsewhere in length what the nature of this shared understanding involved. Asch, (2014) for example, argues that it was likely that the Crown understood and agreed to First Nations’ understanding of this treaty as an agreement of peace and sharing and not of extinguishment of rights and title, although this was agreed to orally and not captured in the written agreement. Others argue that the written agreement was a better representation of what occurred than oral accounts (Flanagan, 2008). Regardless of what that understanding was at that time, today FNFN and the provincial government have different frames of what Treaty 8 means. A member of the OGC says,

I think, as an opinion, First Nations would like to have authority for decision-making. But the law doesn't provide that. And I think that is part of the conflict. And so, some First Nations will want to push that quite far and then [the provincial] government and regulators will say, “These are the limits that we have under current legislative ability.” And so, in terms of the Treaty case law - the definition of treaty rights and the management of those - the Commission [OGC] understands that very, very well and works to ensure that all the decisions we make are consistent with the treaty law and our understanding of the case law.

FNFN maintains that the spirit and intent of Treaty 8 was of peace and sharing and that they have a right to self-determination and the right to govern their land according to their own values (Logan, 2014). The provincial government considers the Treaty 8 as an extinguishment of ownership of land and of the right to self-determination. At the broader level, then, there is a difference of framing around what Treaty 8 means, and a similar lack of opportunity to reframe and determine what Treaty rights mean in the current governance context surrounding water use for hydraulic fracturing.

Social learning literature would suggest that to avoid differing frames that lead to conflict and entrenchment, a reframing process would help actors to come to a new shared understanding of what “treaty” means today, along with the implications of that understanding for decisions about whether and how water is used for hydraulic
fracturing. By undertaking a reframing process – one where FNFN and the Crown could develop a shared perspective through interaction and debate with each other - a new understanding of the “duty to consult” for water licences and hydraulic fracturing could emerge. Ideally, regulatory frameworks that are created through shared understanding provide stability for actors and affirm expectations that can be built and incorporated into future decision-making (Pahl-Wostl et al., 2007). There must be flexibility in interpretation of the rules, and the opportunity to renegotiate and change those rules, as learning takes place (Pahl-Wostl et al., 2007). in order to avoid a litigious path.

**Legitimacy**

Social learning is fostered when actors have an agreed upon understanding of what their roles are in decision-making, at what point they will participate in the decision-making process and what purpose their participation will serve (Mostert et al., 2007). In the Horn River Basin, a lack of agreement on who has the right to govern traditional Fort Nelson First Nation territory corrodes the legitimacy of current governance processes. Decision-making processes are generally considered to be legitimate only when participants have actual power to influence decisions (Reed, 2008). However, overwhelmingly, First Nations participants in this research spoke about how consultation has become an exercise in futility, as their participation does not lead to any change in decision outcomes.

Social learning processes provide an opportunity for a form of participation, but will also only be deemed legitimate if they are transparent by allowing participants to provide continuous feedback (Mostert et al., 2007). In the Horn River Basin, however, First Nations participants spoke about a lack of transparency of information provided through permits and consultation, including how their treaty rights are assessed. The research findings show that consultation lacks legitimacy because First Nation consultation about water use for shale gas development occurs after key decisions have already been made; poor data quality; data quantity; lack of transparency in decision-making; perspective that FNFN’s participation in shale gas consultation will not influence the final decision; and lastly that consultation has become a “check-box” for the provincial government to meet their legal obligation to consult.
Exclusion from key development decisions

Including actors early in decision-making can either foster or hinder social learning (Mostert et al., 2007). The provincial government encourages industry to engage early in the permitting process and industry participants in this research spoke about “early engagement” as being key to collaborative decision-making. Through the duty to consult, both the Crown and First Nations are obligated to participate in consultation to reconcile the interests of the Crown with the rights of treaty nations. When it comes to resource development, some procedural aspects of this duty are delegated from the Crown to industry and occur on a permit-to-permit basis (Landmann, 2012). This, in itself, begins to erode the legitimacy of consultation in the eyes of First Nations, as this approach to consultation assumes development to be a given. “Early engagement” to industry and the provincial government is initiated as soon as a proponent begins to put an application together for a development permit. But at that point, leases for natural gas exploration have already been sold to proponents, without a broader discussion with First Nations about the benefits or costs of development on their land. One participant, a FNFNLD consultant, agreed that the overarching problem is that the consultation process starts with consultation regarding the impacts of growth and development before there has been a discussion about whether growth and development is in the best interest of First Nations. This approach does not allow for dissonant voices.

For instance, the decision to develop shale gas resources on FNFN land was made solely by the political parties in power. According to First Nations interviewed for this research, saying, “no” to development does not seem to be an option. A First Nations participant says,

…There is a recognition that development is continuing whether FNFN is on board or not. Industry is here to stay and so saying “no” to development is not a viable option, nor does it reflect what the community wants.

By mitigating and adapting permits to lessen impacts, rather than consulting about the idea of development in traditional lands to begin with, First Nations treaty rights have no power. According to First Nation participants it is not unusual for project proponents to begin their work before permits are issued. In these cases, FNFN community members
believe that decisions about the permit approval have already been made. A FNFNLD staff member seems frustrated when she explains how consultation actually works.

More often than not it [the development application] is considered a good idea before it even comes to us. So then, so then, [the provincial government] gets the application. They review it, they package it, they send it to us for comment. And then they take our comments, thank us for our comments and usually determine that there is no impact to our treaty rights—little to no impact. Um, once and a while they admit that there may be high, medium-high impacts to our treaty rights. Regardless of that determination, the permit's approved and that's it! That's consultation!

The discussion about the philosophy of landscape and watershed development are pushed to higher, more strategic “government-to-government” tables, with decision-makers who have the mandate to make higher level decisions. Yet, it is apparent from the data collected that FNFN feel that these strategic processes have been slow to yield results and First Nations cannot trust that their concerns will be heard and considered. One FNFNLD staff member expresses this frustration over the slow process,

Part of it is, I think part of the vision is working together. [But,] I'm tired of fighting these what are they called…bun fights with [provincial] government, you know? While they're sitting in Victoria, counting semantics and shit, those guys are drilling and they're sucking water and they're getting water and gas out of the ground. Ideally we just cut the shit and do what needs to be done to protect the land while they're getting the gas out of there.

While government-to-government meetings are an appropriate forum for strategic discussions, opportunities for social learning are hindered since some key decisions about development have already been made.

Lack of empowerment

Empowerment of actors, or the degree that they influence decision-making, is key to establishing legitimacy in participatory processes (Conrad et al., 2011). Data from this data showed that FNFN members do not believe that their participation in consultation processes has any influence on the outcome of decisions. Several contributing factors were found to maintain this belief.
Firstly, FNFN expressed doubt that industry was collecting sufficient quality data to base decisions upon. As part of environmental assessments and the OGC’s permit application process, industry proponents must supply information regarding what, if any ecological impacts the development from the permit will have on treaty rights. In the data-sparse northeast BC, this means that Industry is often the actor collecting and interpreting data, which is then interpreted and assessed by the provincial government in order to make decisions about development related to hydraulic fracturing. Many proponents hire environmental service consultants to carry out data collection, monitoring and consultation with First Nations. There is no standardization of quality of these companies and this is seen as a problem, as one of FNFNFLD participants explains, “Sometimes they'll do a winter survey and a summer survey and that's it. And they'll be out in the field for, like, a day and a half or two days and that's supposed to be a complete picture.” Some proponents submit a year of data and consider that baseline data, however in a recent Environmental Appeal Board hearing, a FNFN consultant maintained that a baseline of five to six years of hydrological data is ideal for developing rating curves used to estimate how much water should be allocated annually for water permits and licenses (Carey Report from Fort Nelson First Nation, 2013).

In addition to doubts about the quantity of data being collected, FNFN and FNFNFLD participants expressed concerns about environmental service consultants’ ability to interpret data, as they have varying degrees of expertise working in northeast BC and with First Nations.

Environmental consultants have so much control over what’s being said in the environmental assessments and the environmental reviews and even the permit applications….Those people have a lot of power. If it's done right, they know how to work with communities better, rather than taking all our knowledge and using it and interpreting it in a way that is incorrect or not representative. I think that's bad. That's unethical and I think there's other ways to do it…

A FNFNLD staff member explains that environmental service consultants in the past have informally consulted with FNFN members with the assumption that just anyone in the community can represent “traditional knowledge,” when in fact, those individuals may not be knowledge holders about a particular area, and then claimed that their duty to consult had been met.
‘Hey we want someone from your community to participate in our studies,’ and some of the more unethical ones grab a person from the community, take them out on the land, tells them ‘this is what the pipeline is going to look like, this is where it's going to be, do you have any concerns?’ That person would be like ‘mmm…’ First of all, that person may or may not know that part of the land! They may have other reasons for not having concerns, like if they're a contractor and they want the work then they're going to say ‘oh I have no concerns about the project. Just get me the work.’

Another FNFNLND staff member, echoes this complaint,

They'll say that we had three monitors out on all of our biophysical studies and they gave some great information. And I'm like, that's just one piece of the puzzle. There's a lot more out there, so that's a big concern.

Past concerns from First Nations about the quality of data and the interpretation of data, contributes to First Nations’ perspectives that decision-makers do not have the necessary information to make an accurate assessment of potential impacts from development.

Secondly, FNFN and FNFNLND participants expressed that the process that the provincial government uses to assess impacts to treaty rights, particularly how data is considered, is not transparent. As discussed in Chapter 1, like other First Nations in BC, in many instances FNFN has claimed that a permit will have significant impacts on treaty rights, but the permit is approved on the basis that low to minimal impacts are anticipated. Although a letter of rationale for the decision is issued, FNFN thinks that the rationale used is vague. Despite expressing what they see are significant concerns about impacts to treaty rights; there is no change in the decision output. This is why FNFN’s believe that their opinions are disregarded and overridden. One FNFNLND staff member explains,

When we have talked to them [the community] and they have shared information, we bring that back to the table with the industry and [the provincial] government and they ignore it, so our community's like, ‘what's the point of even talking to lands staff? Nothing comes out of it anyways.’ … People feel powerless… They're [industry/the provincial government] just going to do whatever they want anyways.
When community members feel that their participation does not matter, they are less likely to want to participate in future. “...People still don't want to participate in ...those processes, because they don't trust the outcome.” It appears, therefore, that legitimacy of the decision-making process is lost through the eyes of FNFN because they do not see how their input is considered in decision-making and do not trust industry and the provincial government’s willingness and ability to ensure that sufficient and quality data is being collected, interpreted and assessed in a manner that is appropriate for reflecting Indigenous knowledge.

**Biased facilitation**

Consultation in social learning is understood to be a participatory process, requiring neutral facilitation in order to recognize existing power imbalances and ensure that one set of interests is not privileged over another (Bouwen & Taillieu, 2004; Morton et al., 2012; Mostert et al., 2007). In addition, neutral facilitation can acknowledge cultural differences, such as attitudes towards knowledge sharing in the name of transparency, which overlooks for example, the need for privacy of sacred traditional knowledge, too culturally sensitive to be shared with outsiders (Morton et al., 2012). However, consultation for the development of oil and gas activities in BC is facilitated by a central regulatory authority, the Crown and its agents, including the BC Oil and Gas Commission, who has a complicated and conflicted relationship with First Nations.

The Crown facilitates consultation between industry and First Nations before, during and after a proponent applies for an oil and gas development permit. This can involve advising proponents on how to engage with First Nations regarding development on their land, ensuring suitable accommodation measures for the application are explored, providing preliminary assessments of an application and making a final decision based on the merit of the consultation and the application (The Province of British Columbia, n.d.). The Crown defines the consultation process and adjudicates impacts to treaty rights using its own values. The OGC, as an agent of the Crown, holds a similar role regarding applications for short and long-term water permits and licenses as well as consultation in regards to the regulation of oil and gas activities in British Columbia (BC OGC, 2008, 2013b).
Research participants highlighted the close relationship between the provincial government and industry as a reason to doubt that their own interests and perspectives were being considered equally. As one FNFN member bluntly puts it, “We feel that they're [industry] in control of the provincial government. They are all powerful.” This perception was also held by others familiar with the provincial government/First Nations/industry processes:

...if you realize how much both governments work hand in hand with industry … when you get your answers back, whatever it is, that's an answer from both industry and government, it doesn't matter who signs off on it. As soon as you realize that, then that's what you're up against… the government, um, that's where the duty lies and that's where the sort of policies are, but that's not necessarily where the power is. The power comes from industry. So if industry gives the nod, then the government will probably [give the nod].

In other words, while the Crown holds the duty to consult, it is perceived by FNFN that the industry holds the power in decision-making. Some participants described how this power is illustrated through recent changes to regulation related to hydraulic fracturing. This FNFN participant describes regulations as being captured by industry,

Yeah and they'll [industry] say, ‘well we'll do what regulation tells us to do,’ which is the absolute minimum, and of course we don't trust the government we -- as much as we distrust industry -- we distrust government even more! Because from our perspective, and from our dealings with them, they're just there to make it easy for industry to get on the land. They're competing for industry to come to British Columbia instead of going to Alberta or somewhere else. So they give them all kinds of incentives, all kind of royalties, and everything. They're just sweetening the pot so much to get industry to get to BC.

A FNFN elder echoes this perspective,

…They have, industry, has enjoyed license to do what they want in our area. They have driven government too, because we didn't have regulations in place. They set the regulations. They took what they

15 For example, regulation that allows proponents to apply for multiple adjacent frack-sand mining, each following just below the EIA threshold, to avoid robust assessment
wanted out there. And they don't do it with a conscience, and they
don't always do it for what's right for the land.16

While industry or the provincial government may disagree with this characterization
of a “partnership”, these findings illustrate that this perception is widely held in FNFN
community. It is not helped by the fact that, when First Nations raise their concerns,
industry can demonstrate that they are complying with what is required of them – but
these regulations are sparse and are perceived to be developed by industry. In its role as
facilitator, the Crown and its agents must uphold their duty to consult, while also
fulfilling their political mandate to encourage the development of natural gas. Because
the development of natural gas is a shared priority of industry and the provincial
government, but not always a priority for First Nations, the Crown’s legitimacy as a
neutral facilitator is hindered. Whether the perception that the provincial government
favours industry is accurate or not, the perception is damaging enough to hinder
legitimacy and act as a barrier for social learning to occur.

Consultation is viewed as a “check-box”

As discussed earlier, the constraints of the Crown’s interpretation of treaty rights and
subsequently consultation’s narrow temporal scope, spatial scope and the exclusion of
First Nations until the permitting stage, limits opportunities for social learning and
collaboration to occur among actors. The result is consultation that is considered a
formality, fulfilling the legal duty to consult, but contributing little to sound decision-
making. Many of the participants in this research spoke about consultation as if it were a
“check-box” that must be completed for development to continue, but a process that in
itself is ineffective as a participatory process. As one industry participant says, it
[consultation] was just a sort of exercise they [the provincial government] went
through....they're [the provincial government] the sort of rubber stampers.” One industry
participant explains,

the quote unquote “consultation” from OGC is nothing more than that
really stupid formality of, you know, ‘you have to make sure you put

16 For example, a “Freedom of Information” request revealed that a (now rescinded) order to remove gas
processing plants from the EIA was proposed by Encana and the specific changes were proposed by the
Canadian Association of Petroleum Producers, both of which worked with the Province of BC to develop
new regulation changes (FOI of sweet gas plants, 2014, p. 59 and 89).
the map sheet with the map sheet in the right box.’ It's meaningless. Nobody gains from it. But it's something that just has to be done, because that's the process. Um, but companies are going to have to do a whole different kind of consultation that the OGC doesn't even really care about, to be able to get First Nation approval.

Another industry participant says, “Typically industry does a good job of consultation or engagement as they call it, whereas the provincial government we have found typically doesn’t.” The same participant clarifies that it’s not that the provincial government is necessarily ineffective, but:

I just find anytime that government gets involved, it muddies the process and it's not because government is necessarily ineffective because I think they have some good people doing that job, but it's because of that trust or I should say lack of trust that most First Nations have with government you know.

The Crown has delegated procedural aspects of consultation to the proponent, but what is actually sufficient to fulfil the duty to consult is vague and in some opinions, quite minimal. The result being that consultation is in the hands of industry, resulting in uneven execution by industry, depending on their own social license and experience working with First Nations. An industry participant explains, “Usually... because every company has their own approach [to consultation], their own beliefs, their own way of handling things...so usually that's done between the company and the band.” Another industry participant believes that companies that engage and collaborate with First Nations see more success getting their projects approved and in creating a positive relationship in the long run,

…most of these companies are used to working in Alberta, and the model there is like it doesn't matter, you do what you do. A lot of the big companies are big internationals and you know, people transfer around a lot and one day you're working in Papua New Guinea or China, or something and then your next project is in northeast BC and...you don't necessarily know the sensitivities...Everything is so new...I think the companies that continue to put up a fight are going to have a very difficult time doing work...I mean we're seeing that right now in the Liard Basin. There are some companies that are having a hell of a time and there are some that are not. And I would say the only reason is kind of embracing that change and kind of doing the right thing and being more engaged.
While FNFN and some industry proponents are finding avenues to move beyond the status quo and the constraints of the Crown’s interpretation of consultation, a further shift towards collaborative governance could be possible if a reframing of the treaty relationship occurred, that could encourage, rather than discourage social learning.

CONCLUSION

Social learning is one tool for bringing together diverse actors in an effort to address emerging, complex natural resource management issues. Past analysis of collaborative water governance processes has contributed to the development of a social learning framework, including the identification of key conditions that support social learning. These types of analysis help to aid in the implementation of collaborative governance frameworks, by providing a guide for creating effective participatory processes. However, considering that participatory processes can be significantly shaped by their socio-historical contexts, any collaborative governance framework must acknowledge and work to counteract barriers to social learning.

Through an examination of social learning in FNFN territory, this research found that the socio-historical context of the region and its actors did have a significant effect on opportunities for social learning to occur. The signing of Treaty 8 in 1901 is one part of a long relationship with FNFN and the settlers on FNFN’s territory, but has had a significant role in shaping today’s water and hydraulic fracturing governance framework. The Crown’s interpretation of the written agreement signed in 1901 is an interpretation that has not included FNFN’s understanding as an agreement of peace and sharing. The laws and policies that have been created based on the Crown’s interpretation of Treaty 8, constrain social learning as they do not allow for the flexibility needed for a reframing process that might bring the actors to a common understanding of Treaty 8, the treaty relationship and its application as such today, as a basis for future collaboration. Without reframing processes, the consultation process is perceived by FNFN to lack legitimacy and neutral facilitation. Subsequently, consultation is seen as a checkbox that must be completed, but fails to include First Nations’ knowledge, interests and concerns about impacts from development and appropriate accommodation.

The purpose of consultation law is to reconcile the interests of two different world perspectives and legal systems but, due to the length of trials and the financial cost of
litigation, this reconciliation is occurring incrementally. The Supreme Court of Canada’s recent ruling on the Tsilhqot’in case\(^ {17} \) indicates a push of consultation law in a direction towards increasing Aboriginal rights and control over traditional land (Tsilhqot’in Nation v. British Columbia, 2014). It remains to be seen what implications the Tsilhqot’in decision will have on treaty nations, however early speculation suggests that the decision will have transformative effects to current governance practices, regardless of whether a treaty has been signed or not (Miller, 2004). An alternative concurrent path to litigation is to design a collaborative participatory process that acknowledges the socio-historical context and seeks to reconcile different world perspectives, interpretations of the treaty and legal systems. The provincial government and individuals wishing to develop on First Nations land could engage in a reframing process, where the goal of consultation is not to meet the black letter of the law, but instead to obtain consent to develop on First Nations land and share in the governing of land and resources. Such an approach could reduce the legal and financial risk faced by the provincial government and industry doing work in a First Nation’s traditional territory and could cultivate collaborative relationships among all actors.

\(^ {17} \) The Supreme Court of Canada found that Aboriginal title requires that in addition to the requirement that First Nations be consulted and accommodated about developments on their land, their *consent* must be obtained by any government or individual wishing to develop on their land.
Chapter 3: The New Approach: Circumventing consultation

Introduction

Throughout world nations are facing complex environmental issues that require the knowledge and involvement of many types of actors (Berkes, 2009; Mitchell, 2005; Pahl-Wostl et al., 2007). In some places, governments and other actors are turning to collaborative governance arrangements, which have been acknowledged worldwide for their ability to address complex environmental problems and conflicts (Steyaert & Jiggins, 2007; Watson, 2004). Agreements negotiated through collaborative governance processes are thought to lead to more creative, long-lasting solutions with more buy-in from stakeholders and reduced conflict (Margerum, 2008; Morton et al., 2012). Partnerships, networks and shared knowledge between stakeholders built through participatory processes of collaborative governance form a base from which future issues are more likely to be addressed (Folke & Berkes, 2004; Morton et al., 2012; Zurba, 2013).

Globally, there is also a growing expectation for resource extractive industries to engage with local communities where they operate to achieve positive social and environmental impacts in addition to economic impacts (International Institute for Environment and Development and World Business Council for Sustainable Development (IIED and WBCSD), 2002; Prno, 2013). These approaches come under the banner of sustainable development or more recently the idea that corporations should obtain a “social license to operate” in communities (Parsons & Moffat, 2014; Prno, 2013).

In Canada, common alternatives to traditional governance arrangements have been taking the form of impact benefit sharing agreements (IBAs) signed between a corporation and community. IBAs between industry and communities have offered an alternative method of inclusion of communities in decisions about the use of land and water, by providing a means to share in the economic benefit of resources, while also

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18 Chapters 2 and 3 were written with the intention to be published separately in academic journals. As such, some elements in these chapters are repeated, such as parts of the introduction, research context and method. In preparation for publication, I expect that these chapters will be revised appropriately for the chosen journal, in collaboration with Dr. Michele-Lee Moore and a representative from FNFN.
offering a chance to negotiate social and environmental benefits. This provides corporations with a social license to operate and buy-in from stakeholders with the aim to squash resistance to the development of natural resources in a community’s backyard (Parsons & Moffat, 2014).

In Canada, many First Nations continue to struggle to exert their authority over their traditional land and its resources, which they believe was wrongfully taken through negotiation and land claim agreements with the federal government (Notzke, 1995) in the colonization process. Over the past decade, controversy surrounding the use of water for hydraulic fracturing in northeast BC, has lead to conflict between the provincial government, First Nations and industry. In BC, few treaties have been signed and thus, the majority of First Nations in BC have never ceded their land to colonial powers (First Nations Leadership Council, 2011; von der Porten & de Loë, 2013). Even where treaties have been signed, differing interpretations of the meaning of the agreements made by First Nations and the Federal government have resulted in discord over the management of land and its resources today (Asch, 2014; von der Porten & de Loë, 2013). While the Province of BC includes First Nations in water governance through consultation and accommodation processes associated with hydraulic fracturing development, the First Nations of BC believe they have a right to self-determination and therefore a more central role in governance (BC Assembly of First Nations, 2013; Fort Nelson First Nation Lands Department, 2014; Gale, 2014; The Union of British Columbia Indian Chiefs, 2010; von der Porten & de Loë, 2013). While strategic government-to-government discussions are occurring to try to reconcile these differing opinions, questions remain about how to best incorporate First Nation peoples, their knowledge and values into water governance in the province.

19 In this paper I predominantly use the term “First Nations” to describe the original inhabitants of Canada, excluding those of the far North, who are the “Inuit”. In Canada the term “Aboriginal Peoples” is the legal term used to refer generally to First Nation, Inuit and Metis peoples. I use the term “Indigenous peoples” as a broader category, which encompasses “Aboriginal Peoples” of Canada as well as those outside of Canada (National Aboriginal Health Organization, 2015; Tindall, Trosper, & Perreault, 2013).

20 Section 32 of the Constitution Ac, 1982 affirms the existence of Aboriginal and treaty rights (Phare, 2011). It is the Crown’s view that these rights stem from self-governing peoples that were present upon the arrival of Europeans to Canada. The Aboriginal viewpoint is that these rights are inherent and require Aboriginal Peoples to exercise “self-determination”, or “to control or be involved as governments regarding water on their reserves, their treaty lands or their unceded traditional territories” (Phare, 2011, p. 46).
The Province of BC’s approach to involving First Nations in water governance has been largely limited to consultation and accommodation and a slow government-to-government strategic table, yet to yield significant collaboration. Both approaches however, fall short of including First Nations in a governing role, with the ability to influence who uses water, how and when they use it, and how much is allocated. The desire and right to have a central role in water governance has been clearly and repeatedly stated by First Nations in BC (BC Assembly of First Nations, 2013; Fort Nelson First Nation Lands Department, 2014; Gale, 2014; The Union of British Columbia Indian Chiefs, 2010; von der Porten & de Loë, 2013). With BC poised for a significant expansion of natural gas in First Nation territory and therefore an increased demand for water, there is significant economic and political pressure to find a governance solution to the resource conflict.

From this context, new governance arrangements are emerging and their implications for water governance in the region have yet to be deeply examined. This paper introduces one such case of the Fort Nelson First Nation (FNFN), a Treaty 8 nation with traditional territory spanning the Horn River and Liard River Basins in northeast BC who is attempting to find a new approach to governance that acknowledges their desire to govern their water and land (Garvie et al., 2014). In this paper, FNFN’s “New Approach” is examined under the definition of a governance innovation as defined by Moore et al. (2012) in which changes have been made to: a) the sites of authority, b) how financial resources flow, and c) the norms, beliefs, or knowledge base. The New Approach to governance of land and resources on FNFN land has resulted in changes to all three of these areas. This paper presents new ways of engaging with Indigenous governments, which will be of interest anywhere alternatives to traditional methods of resource development and governance are required.

The research objective was attended to through empirical research with FNFN in northeast BC in 2013. The Industry-First Nation relationship in this case study can provide a useful example for other First Nation communities as they face questions of how to exert their goal of self-determination, while operating in the current legislative constraints of the Canadian context, while at the same time creating a possible model for the provincial government and industry to interact with First Nations.
After reviewing relevant literature on Indigenous nation building and First Nations and industry partnerships in BC, the case study and the research method are described. The results section is divided into two sections. The first section serves to provide context to how water governance decisions occur in northeast BC. The second describes four aspects of the governance innovation. The results are followed by a discussion of what the implications of this governance innovation are for water governance in the region.

**Collaborative governance and First Nations in BC**

In Canada, many scholars have argued that Aboriginal Peoples have rights that are *sui generis*, “i.e. a distinct set of inherent rights that existed prior to European settlement,” (von der Porten & de Loë, 2013, p. 150) which are acknowledged in section 35 of Canada’s constitution (Constitution Act, 1982, s 35). As such, Federal and Provincial policy has maintained that inclusion of First Nations as special rights holders is a priority in governance processes (Phare, 2011).

Importantly for BC, a province where many First Nations remain excluded from key decision-making processes, collaboration has been acknowledged as a tool that can be used to include marginalized voices in governance (Assembly of First Nations et al., 2011; British Columbia Ministry of Environment, 2013; Folke & Berkes, 2004). In fact, collaborative principles have been a part of resource governance in BC for some time. Collaborative principles were officially applied to governance in BC in the 1990s following forestry resource conflicts among polarized stakeholder groups, who rallied around land-use disagreements, later known as the “war in the woods” (Morton et al., 2012). However, despite this attempt to encourage government-to-government approaches to governance, the model has failed to adequately include First Nations and their perspectives in decision-making in ways they deem appropriately and meaningful, despite the provincial government’s efforts to engage and collaborate (Booth & Skelton, 2011c; Nadasdy, 2003; Natcher, 2001).

While scholarship suggests that collaborative governance principles can be tools for including marginalized voices in water governance, in practice this has been difficult to achieve. One possible reason that collaborative processes fail to fully incorporate First Nations and their perspectives is that collaborative governance’s goal of achieving relative equality between actors is incongruent with the First Nation’s goals for
nationhood and self-determination (von der Porten & de Loë, 2013). Von der Porten & de Loë (2013) argue that First Nations’ motivations for participating in collaborative processes differ greatly from non-Indigenous collaborators motivations for engaging with First Nations. While First Nations have goals of nation building and self-determination, non-First Nation actors’ hope to make use of First Nations’ valuable contributions. They may genuinely want to build collaborative relationships with First Nations, but are also legally mandated to include First Nations. Non-First Nations may also wish to gauge the political reaction of First Nations to a potential decision (von der Porten & de Loë, 2013).

As a result of these conflicting motivations, First Nations often critique collaborative processes as failing to adequately understand their perspectives and concerns and to then integrate those perspectives with scientific knowledge used in decision-making (von der Porten & de Loë, 2013).

While collaborative governance processes are seen as a means to include Indigenous voices in decision-making, the colonial framework of governance processes tends to privilege powerful actors and their knowledge systems. So even when collaborative governance arrangements include First Nations and their Traditional Ecological Knowledge (TEK) in decision-making, it is often scientific knowledge that is more highly valued. However, Alfred (Alfred, 2005) posits that the failure to fully include First Nations’ perspectives in decision-making is not an unwillingness to do so, but a lack of knowledge of how to include or integrate TEK with western knowledge in colonial governance systems. Nadasdy (2003) supports this notion and argues that until Aboriginal elders and hunters have full-decision making authority over resource management, TEK cannot be incorporated into governance processes (Nadasdy, 2003).

However, First Nations in BC are in different stages of revitalizing traditional values and building capacity in terms of western science and governing skills, resulting in various abilities to carry-out their asserted authority (Mabee & Hoberg, 2006). As a legacy of the federal Indian Act and colonial mechanisms, many First Nations find their traditional governance structures disrupted and their values not as clearly defined as in

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21 The notion that Traditional Ecological Knowledge (TEK) integration is beneficial is contested and some critics argue that TEK integration with scientific knowledge is just another assimilation tactic that defuses and devalues TEK (For an in-depth discussion see: Alfred, 2009; Nadasdy, 2003; Spek, 2005).
the past (Alfred, 2009; Miller, 2004). Development of strong First Nations governance institutions and processes allows First Nations to dictate their relationship with non-Indigenous actors, based on their cultural values and traditional knowledge (Ransom & Ettenger, 2001). As First Nations look to their future, von der Porten & de Loë (2013) suggest that collaborators could support First Nations’ goal of nation building in order to level the playing field between First Nation and non-First Nation actors (von der Porten & de Loë, 2013). Likewise, Ransom & Ettenger, (2001) suggest that colonial governments should encourage First Nations to develop environmental and development policy standards according to their own values. While capacity is being built, control could be handed over to leaders who embody traditional values, but who are also able to apply them to contemporary life (Nadasdy, 2003).

These suggestions respond to the weaknesses of collaborative governance arrangements and their colonial frameworks by supporting the development of First Nation capacity and supporting nation-building. They also assume a central role for colonial governments in governance processes. However, this research has found that an alternative form of governance is emerging in northeast BC that effectively circumvents the provincial government. This governance innovation features a strong relationship between industry and First Nations that seems to better include First Nations, their ways of knowing and their goals than the status-quo. While Chapter 2 analyzed how colonial governance processes create barriers for collaboration, this chapter describes an emerging governance innovation and discusses the implications for governance that follows from this collaboration.

**Research Context**

**Fort Nelson First Nation: Overview**

FNFN is a Cree and Dene nation, made up of fourteen family groups (Fort Nelson First Nation, 2013). Prior to contact with European settlers, they lived and travelled freely through their traditional land, which is located in the northeast corner of BC, spanning from the Alberta Border West, beyond Moose Lake, South as far as Freddie Lake and North to the Yukon and Northwest Territories borders (Fort Nelson First Nation, 2013). Historically the nation moved between ten village sites on seasonal rounds to hunt, fish,
trap and gather, travelling by boat along the river, dog team on the snow, and horseback or foot on land (Fort Nelson First Nation, 2013).

A Treaty 8 nation

FN FN, a signatory of the Treaty 8 agreement, has traditional territory in the Horn River and Liard River Basins (Garvie et al., 2014). Their time-honoured way of life and right to govern resources are legally protected (Constitution Act, 1982, s 35, Treaty 8 June 21, 1899, West Moberly First Nations v. British Columbia [Chief Inspector of Mines] 2010), however the current water governance practices largely fail to acknowledge these rights as understood by First Nations at the time of signing (Asch, 2014; Parfitt, 2011). The treaty formalized the relationship between First Nations and the Queen, or in her place, “the Crown.” FN FN understand this treaty as a treaty of “peace and sharing,” to acknowledge that both First Nations and settlers could share the land in peace (Fumoleau, 2004; Fort Nelson First Nation, 2013). The understanding by FN FN was apparently that these privileges were not in exchange for ownership of the land, but offered on top of what First Nations already laid claim (Asch, 2014). However, the Crown, since then, has treated the Treaty as one of extinguishment of title, rights and concession of land, but allowing Treaty 8 nations to hunt, trap, gather and fish (Booth & Skelton, 2011c; Olthuis, Kleer, 2012; Smith, 2013). This difference of opinion has been discussed at length elsewhere (Asch, 2014; Kempton et al., 2014), and appears to be the basis for difficult relations between Aboriginals and settlers (Chapter 2).

Hydraulic Fracturing

Between 2005 and 2008, bids by industry proponents for petroleum and gas rights in the Horn River Basin rose significantly, peaking in 2008 (Adams, 2012). By 2010, 75% of land was held in tenure (Adams, 2012). The nearby, pristine watershed of the Liard River Basin was not far behind with tenure sales (Adams, 2011). According to FN FN, they did not hear about what shale gas was, and the techniques used in its extraction until 2008; that is, long after tenure rights had already been granted to companies (Garvie et al., 2014). Since then, the Fort Nelson First Nation’s Land’s Department (FNFNLD), created by the Oil and Gas Commission (OGC) to process shale gas permits has grown significantly in its size, capacity and ability to participate more fully in consultation.
processes (Fort Nelson First Nation, 2013). FNFN believe that over the past decade, the exploration and development of shale gas has threatened their traditional way of life at an alarming scale and pace (Garvie & Shaw, 2014). FNFN is concerned that the current governance frameworks surrounding tenure rights and water allocation for hydraulic fracturing is not respecting and protecting their rights, as they believed they were guaranteed by the signing of Treaty 8 (Garvie & Shaw, 2014). Due to the immense pace and scale of the development of shale gas reserves on their land, the different interpretations of treaty rights has become a prominent issue.

**Methodology and Method**

**Methodologies**

Given the exploratory nature of this study and its focus on Indigenous issues, ideas taken from grounded theory and Indigenous methodologies were deemed appropriate to explore the phenomena of a governance innovation in the context of water used in hydraulic fracturing on FNFN territory. Incorporating Indigenous methodologies (Chilisa, 2012; Louis, 2007; Steinhauer, 2002; Wilson, 2007) into the research design provided guiding principles for conducting research with and for Indigenous people. As is consistent with these guidelines (Chilisa, 2012), the research was designed to combine the worldview of the researcher with the nature of the research problem and the variety of knowledge systems that were relevant to the case study.

A case study is in-depth, focusing on many aspects of a single phenomenon, rather than comparing different instances of a phenomenon across cases (Baxter, 2010). Theory can be generated using a case study by the deeper understanding of the phenomenon that it provides (Baxter, 2010). This deep analysis can contribute to a broader understanding of the studied phenomenon, but the transferability of the case study depends on its rich description (Baxter, 2010). By providing details of the nuances and context of a case study and by providing sufficient explanation of why a phenomenon occurs, future researchers can determine how aspects of the case may or not apply to their own research (Baxter, 2010). Grounded theory and case study methodology work well together, due to the iterative relationship. Both start with a loose hypothesis that is then tested in real life and compared to literature that might contribute to explanations of the real life case.
Indigenous methodology emphasizes that any research, particularly that being undertaken by a non-Indigenous scholar, should first and foremost be undertaken with an attitude of humility, respect and openness (Koster et al., 2012). This fits with Wilson’s (2007) synthesis of guiding principles, which urges researchers to: conduct all actions with kindness, honesty and compassion; to allow the benefits for the Indigenous community to drive the research; and for researchers to work with a team of Indigenous thinkers. Wilson (2007) emphasizes the importance of the researcher constantly evaluating responsibilities and obligations to the researched, making sure that those responsibilities are being fulfilled. In line with this thinking, Martin and Mirrabooka (2003) strongly advise that researchers must recognize Indigenous world views, knowledge and realities as distinct and vital to the existence and survival of Indigenous peoples; the social, historical and political contexts that have shaped Indigenous experiences must be emphasized; voices and experiences of Indigenous people must be privileged in the research and lastly, that research should identify and address issues of importance to Indigenous people. Every attempt has been made to accomplish this here, but it is recognized that learning how to practice this well is an on-going process.

**Method:**

Research methods included semi-structured interviews, participant observation and document analysis. The first point of contact was Lana Lowe, Director of FNFL. In keeping with the Indigenous methodological approach, Lana agreed to introduce the researcher to the community and to FNFL staff, and provide preliminary suggestions of who to interview, with the understanding that a basic criteria was that participants were involved with or familiar with water governance in the region: industry proponents, FNFL community members, FNFL staff and colonial governments were all involved.

From there, the snowball technique was used, where one person recommends another to generate more participants. Extensive effort was made to access industry and provincial government perspectives, however only two out of four companies contacted and four individuals from municipal and provincial governments out of the sixteen contacted agreed to interviews. Although some members did agree to interviews, the individuals were generally those who were not directly involved with FNFL on shale gas development and water governance in their territory. Some of the provincial government
individuals were contacted multiple times. Some responded recommending people to speak to other people, or forwarded interview requests to the communications officers. Applicable leads were followed up, but some of those suggested were not relevant to the research or other team members had already contacted them, without receiving a response. Industry members were only responsive when introduced through an introduction by FNFNLD Director Lana Lowe. One individual agreed to do an interview, but upon follow-up was non-responsive. In addition, during field research, Apache and FNFN were negotiating agreements, and seemed to contribute to reluctance on FNFNLD’s to make an introduction with Apache.

Despite these challenges and limitations, seventeen semi-structured interviews were conducted between May 2013 and January 2014: three with FNFNLD staff (plus one repeat interview); two with FNFN community members; one with a FNFN councillor; two with FNFN consultants; three with industry proponents; one with an employee of another First Nations band; and four with members of the provincial and municipal government.

The researcher spent six weeks working in FNFNLD in May and June of 2013, participating in and observing day-to-day activities of the department related to consultation and shale gas development, through established methods of participant observation. The researcher attended community events and meetings with the provincial government and industry. Participant observation of events, such as the testimony from an Environmental Appeal Board hearing between FNFN and the Province of BC’s decision to issue a conditional water license to Nexen in October 2013 and January 2014 were also used as sources for data collection.

Grounded theory approaches were then followed with an iterative approach to data analysis (Corbin & Strauss, 1990). Interviews were recorded and transcribed as soon after the interview as possible. The researcher wrote personal memos throughout the research period to reflect on the interviews and other events during the data collection period, which informed the research. The interview transcriptions were coded by hand and analyzed following guidelines outlined by (Corbin & Strauss, 1990). The first interview

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22 During the data collection period from May 2013 to January 2014, FNFN and Apache were negotiating various aspects of a “New Approach” to governance. Due to the evolving nature of the agreement, at certain times in this document, the New Approach is referred to in the past, present, and future.
was analyzed using line-by-line coding or open coding. The codes generated in the first interview were used to analyze the second interview and the third interview was analyzed using codes generated in the first and second interviews. Analysis of subsequent interviews continued in this manner. As main codes and emerging themes were identified, subsequent interview questions evolved to delve deeper into the themes in order to add nuance and test theories about governance processes. After all interviews were analyzed, codes that were generated in the first round of analysis were grouped into themes and subthemes. Although grounded theory uses data to examine subjective understandings rather than focusing on stories and experiences on their own (Suddaby, 2006), in keeping with Indigenous research methodologies (Wilson, 2007), data has been presented verbatim, whenever possible in order to ensure that intent and content of Indigenous voices in particular, remained intact.

Results

Overview

This research provides an understanding of an governance innovation by 1) examining the typical way that Industry and First Nations relate to one another in mainstream shale gas and water governance in BC through: project management, revenue and authority, and data; 2) describing FNFN’s desire for a New Approach to resource governance and; 3) examining project management, revenue and authority, data and the Industry-First Nation relationship under the “New Approach.” Further implications of the New Approach are introduced in the following Discussion section.

1. Industry-First Nations: The Status Quo

Industry-First Nations Relations: Informing First Nations

As recently as 2011, there were eleven multinational oil and gas companies operating in the traditional territory of FNFN. According to FNFN, before they really knew what hydraulic fracturing was, most of the leases for land tenure had been sold to industry in 2008 (Adams, 2012). Trillions of cubic metres of natural gas on traditional territory represented a huge economic opportunity for FNFN, but one that would also benefit industry (Council of Canadian Academics, 2014; Parry, 2013). A FNFNLD staff member characterizes industry’s sudden change of attitude:
When the gas prices were high and the boom was cruising along … we were the prettiest girl at the dance. And they were telling us all these things that we wanted to hear - about loyalty, and future, and long-term benefits, and all that stuff. And then all of a sudden, oil and gas [global market prices] tanked and they scattered like rats on a sinking ship. People are out of work and so people know where the oil and gas loyalties lie. They're not fooled anymore. Some are even bitter…I think…that the jobs that they were promised have suddenly been taken away.

Development of oil and gas resources in BC is proponent driven, meaning that if an oil and gas company wishes to develop oil and gas resources they must prepare a plan of development and apply to various Federal and Provincial Ministries and Departments to obtain the necessary permits and licenses. Typically, oil and gas companies have an in-house project manager who is in charge of this process and who hires external environmental service consultancies to conduct ecological, traditional use studies and hydrological surveys to create reports that will be used to base decisions. A FNFNLD consultant describes industry’s contracting structure:

One of the biggest [things I’ve found out, is that] industry never does anything themselves. They have no internal people that actually do work. They have internal, all their people internally are project managers and they manage all the consultants that actually do the work….What happens now is industry hires this suite of consultants, this suite of consultants who come over to deal with Fort Nelson.

And here, a FNFNLD staff member further explains the role of consultants in environmental assessment processes:

… a company [like] TransCanada or a producer like Apache, they have certain regulatory things they have to do, hoops they have to jump through to get their permit. One of them is [an] environmental assessment, either its in federal or provincial. Another is for the OGC. They require wildlife mitigation plans. They require archaeological work to be done. [In] forestry there’s pest management plans that need to be done. All these companies are hired by the producers and the pipeline companies to draft these reports and these assessments and these applications for the company

Multinational oil and gas companies working in the area have varying degrees of experience working with First Nations, but most entered the region without experience of
the regional political and legal sensitivities. Fort Nelson First nation’s experience working with external environmental consultancies conducting studies of their land have been discussed in length in Chapter 2, however a brief synopsis is provided here:

Environmental consultancies have varying degrees of experience working with First Nations so are not necessarily sensitive to appropriate processes and approaches to collecting data. Nor do they know which values are important to First Nations. Participants in this research reported cases of misused or misinterpreted data and inappropriate research collection methods by environmental consultancies. Without a deep understanding of the First Nation and their culture, environmental consultancies lack a contextual understanding required to accurately interpret data. This is especially true concerning data acquired from FNFN members, who may or may not be knowledge holders or who have economic rather than ecological motivations. A nuanced understanding of a First Nation, their beliefs and internal politics is imperative for an accurate Environmental Impact Assessment.

First Nations typically become involved with a referral when the project manager or their First Nations Liaison contacts the Band Office or the First Nations’ Lands Department to inform them of the company’s intentions. As the oil and gas company develops their application, they may meet with the First Nation representatives to discuss the nation’s concerns and build mitigations into the application. More commonly, the First Nation representative is contacted after the plans for development are fully formed, limiting the opportunity for their perspectives and values to be included and considered in development plans. Furthermore, the question to them is not whether development will take place but rather how soon and under what circumstances (Bradley & McClurg, 2012; Kempton et al., 2014).

Trust between industry and FNFN is typically low. Mistrust has been built over lack of information or misinformation and what FNFN members perceive as a blatant failure to disclose the risks of hydraulic fracturing. Excerpts from one interview with a FNFN member characterizing mistrust around information from industry provide insight:

…In June 2008 I attended a community meeting [that was] an information session where all the [members of the] Horn River Producers Group were there. They were all talking about…the Horn River Basin and shale gas. One of the fellows who’s kind of out on the
land, he says, “Ask him about water, ask him about water!” Because we didn't know [anything about the process at that time]. They were just talking about how they found shale and, “this is how you get the gas. You fracture it.” But then he says, “ask about the water” and so I asked about water and they kind of just went, “Yeah, we do use some water as part of the process”. Later, there started to be concerns from land users. Some alarm bells started to go off…Our land users were saying they're seeing things. “They're [industry is] taking water [through an] eight-inch water [pipe] out of the Petitot River. The eight-inch pipe has no screen on it. Fish are getting in there.” They take a lot of water, so again as we were finding out what was going on - just the scale of development- it was like getting hit by a freight train…

…The fellow from the Oil and Gas Commission he says to me, “we only just heard about it a year ago, we didn't know about this shale gas”, but again you find out that it was three years before that Encana was here. The guy from oil and gas “oh, we only just heard about it!”…

…Industry wouldn’t disclose [the chemicals in the fracking fluid]. They said [it was] proprietary information. But I went again on a field trip with Imperial and I asked the fella, I said, “what kind of chemicals do you use?” and he said, “Aww, it's all proprietary. It's all secret.” And I said, “well, aren't you worried?” He said, “no it's 2500 metres under “. He just didn't care…

…There's mistrust. On our part. And definitely mistrust and on their [industry’s] part. It's like trying to pull teeth to try to get them to do anything. Again, bottom line with them, it's like trying to pull teeth. Yeah and they'll say, “Well, we'll do what regulation tells us to do,” which is the absolute minimum. And of course we don't trust the government. As much as we distrust industry we distrust government…

Furthermore, formal letters and presentations characterize industry’s approach to *inform* rather than consult with FNFN of their plans for the area. The status quo does seem to be changing. One industry participant stated that this approach of informing, rather than consulting has worked in Alberta, but those who do not adapt to the political climate of BC do not build good relationships with First Nations and therefore are not as successful.

I think some people are just assholes [sic] and you know, that's just the way it is. I think that that's a pretty blanket statement and that, you know it's not all that helpful. The much more nuanced response is that
if this [industry in northeast BC] is pretty new, most of these companies are used to working in Alberta, and the model there is like it doesn't matter, you do what you do. A lot of the big companies are big internationals and you know, people transfer around a lot and one day you're working in Papua New Guinea or China or something and then your next project is in northeast BC and, you know, you don't necessarily know the sensitivities and you don't necessarily know how to respond. Everything is so new…The companies that continue to put up a fight are going to have a very difficult time doing work. I think the reason that there are still companies like that is because they haven't really had to do anything new [before]. I mean we're seeing that right now in the Liard Basin. There are some companies that are having a hell of a time and there are some that are not. And I would say the only reason [that those companies are doing well is because they are] embracing that change and doing the right thing and being more engaged.

Among industry, First Nations and provincial government participants, there was a consensus that industry needs to engage with First Nations early in the permitting process, but there was no clear consensus on what “early” means. Several participants used the term “pre-engagement” to describe the need to contact First Nations as soon as a company knew they were going to seek to develop an area, but these same participants then described the importance of industry informing First Nations of their plans rather than the shared project management approach of FNFN and their industry partners. As discussed earlier, the exclusion of First Nations in the decision to grant exploration leases to industry has already excluded First Nations in a key decision-making point.

Several participants spoke about the importance of open, honest communication, maintaining realistic expectations, as part of building collaborative relationships with other actors and building trust. Here an industry participant describes the importance of good communication:

Good communication and …you know, [providing] accurate up to date information [are key to strong relationships]. There’s a lot of times I’ll take calls at, you know eight o’clock at night, because an issue will come up, you know or [on] a weekend [also] having a presence in the community [is important].

And another industry participant speaks about being honest and managing expectations:
First Nations want long-term plans … that are twenty years down the road but there's no oil and gas company that works like that right? … a way to sort of develop trust is to be really open, transparent and honest [and] build a collaborative environment…but you know you can only do what you can do but we still couldn't even get the three year development plans

A government participants emphasizes the importance of building long-lasting relationships with First Nations:

… its not, you know, at all costs get something built, because they're [industry] looking at longevity, if they're going to build something, or if they're going to do something on the land base, they're going to be in the communities for a long period of time. They know that they need to become part of the community.

In addition, participants described the relationship as being informal. Several industry and government participants spoke about the importance of proponents making an effort to get out on the traditional land and getting to know people by attending cultural events. Informal relationships aid in communication by being able to clear up potential misunderstandings before they become problematic. Here, a government participant speaks about how informal relationships help to address day to day issues that arise:

[you want to get to the point] where people can just pick up the phone and kind of chit chat if there's an issue that they see arising. You know that everything doesn't necessarily need to go through a formal process? If we can build the relationships to the point that there's that trust, that a staff can pick up the phone and say ‘Hey, this is happening. What do you think about me doing this? Or, what if you did this and we work through it this way? That will go a long way.

But, while there are some actors who recognize the importance of including First Nations earlier in consultation processes and developing a close working-relationship, their approach does not stray too far from the informing model.

Financial Flows: Money for Consent

Financial benefits from natural gas development reach First Nations through IBAs with industry (Wright, 2013). Water license fees are not shared, but are nominal. Typical arrangements require First Nations to allow infringements of their rights and title on their traditional land for a specified amount of time in exchange for a package of benefits.
These might include a short-term economic windfall for First Nations, as well as other social and cultural benefits such as preferential hiring for band members, capacity building, social programs and direct communication with industry about potential impacts from the development and possible mitigations (Wright, 2013). While the lack of provincial government oversight of these agreements allows for flexibility in negotiations and acknowledges First Nations autonomy in their claims to land and rights (Wright, 2013). The agreements are not legally binding and there is no provincial government regulatory body responsible for ensuring compliance (Caine & Krogman, 2010). In cases of development First Nations are typically required to sign confidentiality and no contest clauses, which means there is no process for holding industries accountable (Caine & Krogman, 2010). As a result, the implementation of IBAs is highly variable and failure to implement agreements has emerged as a major obstacle for the transfer of benefits from industry to First Nations (Wright, 2013).

**Data**

Northeast BC is considered a data-poor area. Due to the requirement of large volumes of water used to extract natural gas through the technique of hydraulic fracturing, water quality, quantity, and the interactions between surface and groundwater, have recently become of interest to the provincial government, industry and First Nations (Moore et al., 2014). Industry remains the largest holder of scientific knowledge, followed by the provincial government and First Nations. First Nations in particular seek a regional approach to data collection and analysis through cumulative effect frameworks in order to assess impacts from all industry on the environment. The provincial government and First Nations face the challenge of having limited resources to collect and analyse data. Data is proprietary; meaning the entity that collects it, owns it. To industry, keeping ownership over data is important, because of the financial potential, especially seismic data showing the type and quantity of natural gas located underneath the earth’s surface.

In addition to the collection of western scientific data, industry also collects requires traditional ecological knowledge from First Nations to be used in Traditional Use Studies to be part of permit application packages (Booth & Skelton, 2011c). Oil and gas companies typically hire environmental service companies to do this work, who have
varying levels of experience working with First Nations and interpreting their values and perspectives. As a result, research has been conducted and interpreted in ways that First Nations deem inappropriate and inaccurate.

**Box 1.1 Apache Profile:**

Apache Oil Corporation was founded in 1954 in Minneapolis, Minnesota and quickly became an international corporation (Apache Corporation, n.d.-a). Apache was the first company to complete a producing well in the Horn River Basin in 2005 (Apache Corporation, n.d.-a). Along with EnCana, Apache has advanced efficient drilling techniques, well pad development and jointly built the DeBolt water treatment plant, enabling the use of saline and sour (hydrogen sulphide) water of the DeBolt Aquifer for use in fracking (Encana, n.d.). In 2012, Apache entered an agreement with Chevron to build and operate the Kitimat LNG pipeline project on the West Coast of BC (Apache Corporation, n.d.-a). The agreement split ownership of the Kitimat plant, pipeline and 644,000 Acres in the Liard and Horn River Basin (Apache Corporation, n.d.-a). Chevron is in charge of operations of the plant and pipeline, while Apache is in charge of the upstream operations (Apache Corporation, n.d.-a). However, in 2013, Apache announced a plan to rebalance its portfolio in order to pay down debt and build funds to invest in capital (Apache Corporation, n.d.-a). Apache also plans to sell its assets in Canada for $326 million (Apache Corporation, n.d.-a).

Apache Oil Corporation’s mandate for working with Indigenous people is outlined in a statement on their website (Apache Corporation, n.d.-b) Apache has committed to

> working with Indigenous peoples in the communities in which we operate in ways that respect their customs and values. We tailor our actions to each community’s particular culture and local law, but our approach across settings is consistent with the guiding principles of the United Nations Declaration on the Rights of Indigenous Peoples, the International Finance Corporation’s Performance Standards on Environmental and Social Sustainability, the ILO Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries, and the World Bank’s Operational Policy and Bank Procedure on Indigenous Peoples (Apache Corporation, n.d.-b)

Despite the benefits that could be derived from sharing data between actors, data collection remains uncoordinated and overlapping. Several participants described the lack of data due to the remote location of natural gas plays in BC, together with lack of knowledge of environmental and health impacts of new extractive techniques, is a key governance challenge. However, a bigger issue still, is the lack of trust between actors. The consequence of this in terms of data is that all actors assume that all other actor’s data is biased and therefore not trustworthy (Moore et al., 2014)
2. The Need for a “New Approach”

In 2013, Apache (See Box 1.1) announced its plans to begin a seismic exploration program in the adjacent and untouched Liard River Basin. Based on their experience in the Horn River Basin, it was clear that saying, “No” to development was not an option, nor is it what the Nation wanted. A FNFNLD staff member’s comments highlight the frustration of BC’s current approach to consultation:

We usually just said no and the way the regulation and the OGC operates is, um, they'll just [approve most permits]. So, saying “no”, just get us a “thanks for your comment; and [they] issue the permit, or they trigger the dispute regulation process. So, saying “no” within the OGC and within the current regularly consultation regulatory process is just meaningless. The only way to say “no” is if people stood up, physically and said, “no, you're not coming in here”.

It's tough for us because our community members want the jobs that oil and gas brings and sometimes their loyalties are split between the companies they work for and the First Nation administration and Chief and Council. So we've never been in a position to say, “no, you guys aren't coming in here.” I think when I first came on board I tried to say “no,” but then I quickly realized that that wasn't exactly the position of most of the community members [laughs]. So generally we're okay with some development, but the 600% increase [in shale gas development is what] people are concerned about..[that the land just can't handle it].

One of FNFNLD’s consultants comments further on the difficulty at stopping development from occurring:

They're also conflicted because while they have protested this industry's existence, they're also pragmatic in that it would be a difficult thing for them to say no. Internally, in their own internal politics, and externally. The fact that they're not the decision-makers, nor are they the regulators, nor are they the owners. So, no isn't an option. It's rarely an option, treaty or non-treaty.

Engagement in the consultation processes yielded little influence over the outcome of decision-making processes. Due to feelings that further engagement in the consultation process would result in a continued inconsequential role in decision-making, FNFN sought a New Approach to governance in the Liard River Basin that would circumvent provincial government consultation processes.
A FNFLND consultant describes FNFN’s goal to gain economic wealth and power:

Very simple, they want power and money. So power means they want to have the ability to affect decisions and how they get made…They want to have an influence on how this industry rolls itself across the land.

The idea behind the New Approach is to get ahead of consultation processes by engaging with industry as soon as they express an interest in development on traditional territory. This New Approach can be understood as governance innovation, in that it shifts the balance of power in decision-making, bringing Industry and First Nation closer together and leaving the provincial government on the periphery. The New Approach depends on respectful, honest and transparent relationships between industry and a First Nation who co-create development plans. Once plans are negotiated, the proponent applies for a permit, as it normally would. The permit application, or “referral” goes to the OGC and then to FNFN. At this point, FNFN would normally give input on the referral and discuss impacts and mitigations, but since they have already been involved in the development of the referral application, this step becomes a formality. FNFN signs off on the application and the permit goes back to the OGC for approval.

For industry, the New Approach increases certainty for applications. Once development plans are created and a permit is submitted to the referral process, they have certainty that there will be no delays on FNFN’s side, as they have already negotiated their concerns. In addition, they are more protected from future delays of appeals to approvals. While the provincial government maintains that present governance processes discharges them of their duty to consult with First Nations, their interpretation of how and when their duty to consult with First Nations is discharged is subjective (Kempton et al., 2014; Natcher, 2001; Phare, 2011; Tang, 2014). Repeated successful appeals in the Supreme Court of Canada by First Nations over the Crown’s failure to consult and accommodate adequately are costly and cause major delays to development. Therefore, it becomes a high financial and time risk for industry when First Nations are not adequately involved in governance.

Industry-First Nations Relations: Shared Project Management

As discussed earlier, there has been recognition by some companies that building relationships with First Nations will facilitate the development of their project. Apache is one such company. The Fort Nelson First Nation and their industry partners are experimenting by negotiating small pilot projects and programs and building trust slowly. Participants characterized the relationship as a close, working relationship, but also emphasized that it has been a process to negotiate new ways of working together. Here a FNFNLD staff participant describes part of the relationship-building process:

[one of the challenges of the New Approach is] managing industry expectations when they come to us and say ‘what do you think of this?’ and we have … our discussions internally and we talk to our consultants and we talk to some people on the land, um doesn't mean that it’s smooth sailing, you know. There's still going to be people out there who aren't going to agree with what's going on and there's going to be people that want things done in another way.

Industry participants also spoke about the challenge they face when bringing ideas back to their own companies. One industry participant described the tendency for there to be a disconnect in larger companies between the people who work directly with a First Nation and the managers and directors, who may not have an understanding of the political context of northeast BC. Another industry participant, who is working under the New Approach said the small size of their company and the specific individuals are a key to their strong relationship with FNFN and have lead to an informality between the actors:

Honestly we're pretty informal…[FNFNLD Director, their negotiator and my boss, and I] we really all see eye to eye on stuff. So there hasn't been a need to make anything super formalized and involve lawyers and all these sorts of things

Low natural gas prices have slowed down development, providing time to develop better relationships and more thought-out management plans with those companies who are willing and still remain in the area. A FNFNLD staff member emphasizes that the slow natural gas market has allowed FNFN and industry the time to develop a new approach to governance:
..it seems when there's more time to plan and when their decisions aren't too far down the road [as in, not too developed] we have the opportunity to work with them and really be innovative and think about how this development is going to happen…I think it's good right now because business is slow and the people that are committed to the area are still here and they're still talking to us and now we're starting to get, I think some pretty innovative arrangements with industry where we can actually have a say in how projects are planned and how tenures are planned out. So, I'm optimistic in that sense.

Since Apache is in the exploration phase of the Liard River Basin, the extent that they are working with FNFN at this early stage of development is novel. While some participants talked about the idea of pre-engagement with First Nations, their description did not stray from the status-quo of consulting and accommodating. In contrast, the New Approach acknowledges FNFN’s desire to govern its land and water by including them in the design and implementation of industry development plans. A FNFNLD staff member explains that this shift in management came after FNFN became frustrated with their lack of autonomy.

Out of frustration with everything going ahead as applied for, um, we started looking for companies that we felt we could build a relationship and influence their permit application so how the application goes in is decided not only by the company and the environmental service company but us and the company so that when it does go through the OGC process our values are already accounted for so when the OGC says ‘yes,’ they're saying ‘yes’ to a wildlife management plan that we helped develop.

In the New Approach, Apache hires FNFN as a fee-for-service consultancy who can then contract out parts of the environmental assessment, monitoring and mitigation design if needed (Hayward, 2014). In this way, the environmental consultants must conduct their research according to the methods and values in accordance with FNFN. This shift of power aims to hold the environmental consultancy accountable to FNFN.

With FNFN in a more central role, changes in practices are already occurring. For example, in January 2014, an exploration contractor was clearing forest using a mulcher (Fort Nelson First Nation, 2014) in preparation for a LIDAR program in the Liard River

23 LIDAR stands for Light Detection and Ranging and is a remote sensing technique used for in the exploration of natural gas (National Oceanic and Atmospheric Administration, n.d.)
Basin. The mulcher killed a hibernating bear. The suspension of industry activity would be a financial loss for industry and in the remote northeast of BC, it would be easy for an incident like this to go unnoticed. But the loss of a bear’s life due to industry activities is a great upset for FNFN and if a traditional land user did happen to discover the killed bear, (as has occurred with beavers in the past) existing feelings of mistrust towards industry would be reinforced.

In this case, the contractor immediately contacted FNFNLD who then told the contractor to stop immediately (Fort Nelson First Nation, 2014). FNFNLD spoke with Apache who agreed to suspend all activities until a plan was put in place to prevent an accident like this occurring again (Fort Nelson First Nation, 2014). This plan included: hiring traditional land users as field scouts to walk ahead of mulchers and flag bear dens; using helicopter-mounted thermal-imaging cameras to detect bears; contractor mapping and identifying areas that might have a higher likelihood of bear dens due to ecology and topography; the contractor providing mulchers with an orientation to identifying bear dens; setting out protocols for suspected bear den areas such as stopping all activity until a field scout confirms or denies its presence and in case of a confirmed bear den, creating a 50 m no-work buffer around the bear den (Fort Nelson First Nation, 2014).

Industry’s willingness to comply with FNFN’s protocols indicates understanding of the importance of bears to FNFN and shows respect for their values. Moreover, the importance of bears to FNFN and the possible threat to bears imposed by industry is not questioned and does not need to be evaluated or assessed by industry or the provincial government in order to be deemed a legitimate request. Openness and honesty exhibited in the bear incident help to build trust where there has been little before.

Revenue and Authority
While IBAs are the norm between First Nations and industry, FNFN sought an agreement with Apache that went beyond the status quo. A FNFNLD staff member comments on FNFN’s history with IBAs:

We're not going to sign any agreements….we have signed agreements like this [IBAs] in the past and we've learned our lesson… where we're required to sign off on all development in our territory for a certain amount of time in exchange for money
In contrast to benefit sharing agreements where First Nations receive money for the development of their land for a certain amount of time, the current arrangement between FNFN and industry allows for increasing power through inclusion in project management in addition to monetary benefits. A FNFNLD staff member describes the aims of the New Approach in contrast to the status quo:

The direction given to our negotiator is that he is to negotiate an agreement that gives us enough power over decision-making so that when these baseline studies and ongoing monitoring that we are implementing [show significant impacts to the land, we have enough power]… to say ‘the land can't handle this level of development [anymore]’

[this arrangement] gives us more control over our territory and that suits my values because I really believe that it is our responsibility to manage our land. It's not the BC government’s responsibility and that's part of the treaty relationship- our relationship is with Canada. [It’s a ] government-to-government, nation-to-nation treaty. BC's just kind of in the way, you know, making bad decisions and poor regulations and ignoring a lot of the work that needs to be done. So, we don't mind stepping in and doing that work and taking control of the situation.

For example, one participant gave the following example: Government regulation limits oil and gas activity in caribou range during calving season, which is estimated as occurring from June 15 to July 15 annually. This is also a critical time for industry activity and Apache wanted to access to this land during this time. Government is restricted in their ability to help industry negotiate this and First Nations, in the past may not have been willing to allow this, due to their already limited power and influence in development on their land. Under current arrangements between FNFN and industry, FNFN has more capacity and power in decision-making allowing for the possibility of more flexibility when negotiating with industry. It could be that the calving season regulation was based on the calving season in another area of BC and used as a proxy for the rest of caribou range. Using traditional and scientific knowledge, FNFN can assess how accurate the dates of this calving season are in their territory. They have the capacity to assess the data thanks to financial support from industry, the traditional knowledge from their nation, the capacity to integrate those types of knowledge and the autonomy to decide what the final decision is.
In addition, the fee-for-service model leverages the amount of economic benefits that FNFN receives. Rather than the typical minimal revenue stream agreed to in an IBA, FNFN receives additional revenue by acting as a consultancy. Industry has significant budgets for environmental impact assessment, monitoring and mitigation design so by handing that money to FNFN instead of an environmental service consultancy industry has little change in economic output, but FNFN receives those revenues.

Shared Data

As stated previously, the relationship between many industry members and FNFN has been one of mistrust, some of which directly relates to the data that is being used to inform decision-making about hydraulic fracturing developments. One solution that FNFN and their industry partners have come up with is to address bias and trust by sharing data. Rather than have industry hire an environmental service company to conduct research and monitoring, FNFN designs and carries out their own research or hires an environmental service company of their own choosing to conduct the research. Industry pays for monitoring stations while FNFN collects and analyses the data. If contracted, the environmental service company is accountable to FNFN instead of industry, which increases FNFN’s trust in the data that is produced. In addition, FNFN trains field technicians from the nation to collect data and also monitor Apache workers’ activity (Hayward, 2014). This small shift gives FNFN more direct control over what kind of research is conducted, when it is conducted, and what values are used in monitoring. It might follow then that issues over appropriate implementation of Traditional Use Studies and the interpretation of their data could also be addressed by involving the affected First Nation directly in the implementation of the Traditional Use Study, giving them more control over how studies are conducted and how data collected is interpreted and presented to people outside of the nation.

Moreover, through this arrangement, FNFN believe their requests for baseline studies and monitoring will be responded to in a timelier manner than their requests through the

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25 As defined in the “Best Practices Handbook for Traditional Use Studies,” a Traditional Use Study is “designed to capture and record patterns of traditional use by Aboriginal communities...Generally, three main types of data collection characterize a traditional use study: Interviews and discussions with Elders and custodians of knowledge; Historical and other types of research and; Mapping and recording.”
provincial government, for similar studies. Industry has the financial resources and motivation to fund this type of research, without the bureaucracy of the provincial government. A FNFNLD staff member describes FNFN’s involvement in monitoring:

[we are negotiating with industry so that] we can do the baseline studies, we can do the on-going monitoring, we can do the cumulative effects assessment and all that stuff that's required for proper land management so we don’t have to rely on government funding or government partnerships to get that stuff done.

The financial resources of industry and their motivation to develop resources as soon as possible provide FNFN with the means to conduct baseline studies and research immediately rather than having to negotiate with the provincial government to get that work done. Moreover, they seem to be more successful at negotiating the design of research with industry, than they are with the provincial government. For example, in December 2013 the provincial government revealed a provincial framework for cumulative effects and began pilot projects in several small regions (The Province of British Columbia, 2014). FNFN chose not to participate in that pilot project. In January 2014, a cumulative effects conference was held to discuss the framework at the University of Northern British Columbia. Several criticisms were voiced, including that the framework pulled from data already collected, but did not involve a discussion with First Nations to determine values meaningful to them (Health Research Institute at the University of Northern British Columbia, 2014).

With shared data, project management and financial resources from industry, FNFN’s land management capacity is increasing. Their Lands Department staff is more directly involved in management and planning and is learning about monitoring and research programs. In addition, FNFN is collecting proprietary data about the Liard River Basin, which, given that the northeast BC is considered data poor could mean they are becoming the actor who holds the most ecological and hydrological data in the area. That alone is a significant achievement considering the disparity of knowledge typical of industry/First Nation/provincial government decision-making processes (Booth & Skelton, 2011b; O’Faircheallaigh, 2007). Of even greater significance however, is the unique position of FNFNLD in having the high capacity and knowledge needed to manage land according to colonial processes, but also to be in a position to insert First
Nation values into those processes by letting their nation’s values guide their decision-making. FNFNLD’s increased experience and exposure to Western land management practice through their relationship with industry gives them the skills to better communicate their TEK. By levelling the playing field in terms of “capacity,” industry is supporting FNFN’s self-determination, allowing them to be the force that integrates TEK. This is a shift from the status quo where attempts by the provincial government and industry to integrate TEK with western knowledge have often failed.

Discussion

FNFN’s New Approach to governance is a response to the mainstream governance framework and collaborative governance alternatives that fail to achieve FNFN’s goal of self-determination and the inclusion of their own knowledge and interests in decision-making. In this section, the New Approach is first discussed as a governance innovation through an examination of changes of the sites of authority, financial flows and knowledge, beliefs and norms (Moore & Tjornbo, 2012). In addition, the extent that their goals are met in the New Approach is considered. Lastly, the New Approach is discussed in relation to social learning opportunities.

Sites of authority

The New Approach essentially circumvents the provincial government and their consultation processes by situating FNFN in a closer working relationship with industry. The New Approach also involves FNFN early in the decision-making process, rather than after the development of a project permit has been submitted. Moreover, FNFN has an equal role in project management so they contribute to the design and implementation of projects. Lastly, FNFN has taken on responsibilities normally taken by the provincial government of defining objectives and standards for operational rules of development on Crown Land. These rules have influence over how development occurs on the land. In the consultation process, industry can refer to the provincial laws and say that they are complying with provincial standards in wildlife management, for example. But those rules only reflect the provincial and colonial values. Through FNFN’s relationship with industry, they have negotiated new standards and protocols that reflect their own values.
This represents a significant shift in authority, but a shift that essentially circumvents the provincial government.

**Financial Flows**

The New Approach changes the way that money flows from industry to FNFN. Rather than earning just a percentage of revenue, FNFN also benefits from significant financial payments from industry on a fee-for-service basis. Money that industry normally pays to environmental service consultancies to conduct baseline studies, monitoring, environmental impact assessment and traditional use studies go directly to FNFN to conduct those same studies. FNFN earns revenue as production scales up as well as through the payments from the fee-for-service studies that the slower paced development allows for.

**Norms, beliefs and knowledge base**

Through the New Approach, the norms, beliefs and knowledge base of the governance system has also shifted. While criticisms of the consultation process, including FNFN have continually made calls for “meaningful engagement” with First Nations, there are few examples to point to as examples of what is meant. The New Approach is one example of a governance arrangement that shows what “meaningful engagement” involves. In doing so, the New Approach increases the clarity and standard of what appropriate engagement entails by involving FNFN early and often in the governance process and in a central role rather than as an afterthought. Second, the New Approach will seemingly result in overall more environmental protections for the Liard River Basin than has been seen in the Horn River Basin, where the New Approach was not applied.

Lastly, the way that knowledge is constructed has shifted. FNFN has become the researcher, designing, implementing and often collecting data. By driving the research agenda they navigate the scientific world by ensuring that those values most important to them are studied and baseline data are collected in order to monitor industry impacts. FNFN owns the surface data and are in the position to share data with the provincial government, rather than request that studies be conducted by the provincial government and industry. Scientific data is used as evidence to determine environmental impacts of
industrial development. Therefore, FNFN’s prominent role in the collection and interpretation of this evidence could represent a significant change in how their interests are included in decision-making.

The New Approach: Self-determination and TEK

The New Approach is a response to a political and economic context, which severely limits how the Fort Nelson First Nation’s knowledge and experience is included in decision-making. Elsewhere in BC, First Nations have participated in collaborative governance processes or signed IBAs as a means to exert their authority and as a result have had stronger roles in governance than through standard consultation processes. While both options have offered First Nations a stronger voice in decision-making, both options fail to meet BC First Nations’ asserted goals of self-determination. Although in general FNFN is an ambivalent supporter of industry, due to the economic opportunity it provides, should they have wished to stop development completely they could not. In taking the New Approach, FNFN sought to develop the capacity to influence how development is occurring, build wealth and power, and with it, the ability to exert authority to govern their land and resources as they wish. In the interim, it is hard to say how this path will unfold. The New Approach has been an experiment offering an alternative model of governance to First Nations and industry in BC. FNFN will gradually build the political power and economic base to have the choice to say no to development in the future. However in the meantime, in taking the New Approach, FNFN is currently saying “yes” to development and also participating in the destruction of their own land. Therefore, while the New Approach allows for a more central role in governance it also carries risks. The extent that FNFN balances capacity building with nation-building could be the key to mitigating risks.

In the past few years FNFNLD’s capacity has increased significantly, both in number of staff, consultants and their ability to navigate provincial government-community-industry governance processes. In addition, FNFN has made efforts to expand internal capacity and engage in processes of nation-building. This balance of supporting nation-building and capacity building has been identified by Von der Porten and de Loë (2013) as key to successful collaboration between First Nations and collaborators. As FNFN’s capacity to govern in colonial systems grows, the extent that the need for nation-building
is attended to could affect aims of self-determination. With industry committed to hiring from within FNFN and provide funding for training, it may be easier for FNFN to learn how to excel in colonial governance systems than industry is able to learn how to govern according to FNFN’s values and governing processes. Therefore, scientific knowledge continues to be privileged over Indigenous ways of knowing.

While the New Approach is not a panacea then, is a way to ensure that FNFN gets the scientific evidence that they need to prove there are impacts to their Treaty Rights. Since it has already been proven elsewhere that neither the provincial government nor industry has the knowledge or experience to integrate TEK, the New Approach is just one solution to ensure that if TEK cannot be appreciated or understood, at least the science that is used, is reflective of FNFN values. In order for this to happen, though, the connection between FNFNLD and FNFN elders and traditional leaders needs to be strong. Those who are actually designing the research processes need to trust and understand their elders’ perspectives in order to protect they say is in need of protecting.

In her 2014 thesis, Hayward suggests that there must be a continued and even stronger emphasis on revitalizing and redefining what FNFN’s values are and that industry funding through the New Approach could also be used to for activities seeding to revitalize traditional values and instil them in youth (Hayward, 2014). Internally, it is up to each First Nation band to consider how funding could be used to re-establish and redefine traditional values and highlight traditional knowledge and ways of knowing.

This idea is not new to FNFN as they have been conducting internal engagement activities with their community to build those relationships. New engagement activities include gathering elders, FNFNLD and youth out on the land to share experiences, stories and skills. For example, when FNFNLD was appealing the installation of a permanent water intake on the Nelson River, they organized a multi-day canoe trip to the point of intake with elders, FNFNLD and youth. The idea was that in visiting the point, elders would be reminded of stories of the past, passing on knowledge not just to youth, but also to FNFNLD. Bound with that knowledge, they could make decisions in the future. This process is also connected to passing on traditions, such as canoeing, revitalizing relationships to the land.
The New Approach: Social Learning

The New Approach was made possible by simultaneous processes of nation building and capacity building, but it did not emerge from status-quo governance systems. Nor did actors come together deliberately to create a collaborative process as in social-learning research of the European Union. Where conditions of social learning were hindered by the colonial context of BC’s governance system, new opportunities for collaboration were created when FNFN hired individuals who possessed the necessary qualities to support collaboration. From FNFN’s legal team, negotiators, and consultants to FNFNLDDirector, all possess not only the technical expertise required in their jobs, but also relational qualities that may have been learned from past experiences either in their communities or in professional capacities, as their resumes exhibit past experiences working for both First Nations organizations and within the colonial system. The multiple oil and gas companies working in the area also provided them a choice in selecting with whom to work. Apache has established their commitment to taking a tailored approach to the communities they work in, a commitment that began before working with FNFN. This kind of flexibility of choosing people to collaborate with is not always available in places where one company is dominant or it is the state that controls governance processes. Where the social or historical context of governance systems hinders social learning, opportunities for collaboration can be created by First Nations by hiring experts who already exhibit the necessary relational qualities. In this way, new governance possibilities can emerge that may not have seemed possible before.

Conclusion

This research examines a governance innovation between the Fort Nelson First Nation and Apache as a case study to examine collaborative governance processes involving Indigenous peoples, the state and private actors. A common goal of collaborative governance processes is creating a partnership that weighs concerns and interests of all relevant actors equally. The case study findings suggest that creating such a partnership in the Canadian-colonial context is difficult due to differing legal interpretations of rights and responsibilities between First Nations and the Crown. The case also suggests that recognizing First Nations’ goals of self-determination and creating
governing processes that are reflective of that goal can lead to outcomes that better reflect First Nations values.

The analysis of FNFN case provides lessons that can be used for collaboration with relevant resource sector actors. Firstly, consultation, engagement or collaborative processes must re-examine the goal of assuming equality among actors and acknowledge the constraints of the current legislative governance. An open discussion and acknowledgement of each actor’s perspective is the first step to identifying common ground and differences, and is also the foundation of building trust.

The second lesson is that when First Nations capacity is supported and their authority is accepted, innovative arrangements can emerge, which better meet both actors’ needs. Given the difficulty that other processes and actors have experienced when attempting to integrate TEK with Western Scientific Knowledge, this case supports a space for First Nation leaders who embody their nations’ values to take leadership positions in resource management as they have the necessary technical skills and ability to act as cultural translators where necessary. Where social learning is hindered by colonial processes, the necessary conditions can be imported by ensuring outside partners have relational capacities that allow for collaborative relationships to be built. First Nations’ efforts of nation-building should be supported, both in their efforts to strengthen or revisit their nation’s constitution, internal capacity and in their capacity in scientific technical management.

Regardless of whether achieving joint authority over lands and resources with First Nations is realistic without a change in current legislation or not, recognizing First Nations goal of self-determination and incorporating aspects of co-management into current governance processes provides relationship, trust-building, capacity building and opportunities for cross-cultural learning between all actors. Those processes are currently occurring between First Nations and industry, without the presence of the provincial government. Even if not perfect, the development of mutually respectful relationships set the groundwork for future collaboration.

The examination of this case study has provided new insights into alternative pathways to achieving First Nation goals of self-determination through partnership with industry and into collaborative governance processes with Indigenous peoples, the state
and private actors. This analysis will inform researchers and practitioners involved in the resolution of resource conflicts between Indigenous peoples, the state and private actors through collaborative governance processes, both elsewhere in BC, Canada and around the world.
Chapter 4: Conclusion

This thesis set out to investigate the presence of Indigenous voices and to explore how these voices are included and can be better included in water governance processes in BC. Two overarching questions were addressed in this research. The first question explored how BC’s colonial context and the provincial government’s “duty to consult” affect social learning processes and the inclusion of Indigenous people in water governance. In order to answer this question, the case of the Fort Nelson First Nation (FNFN) was used to assess social learning processes in the Horn River Basin and to identify opportunities and barriers to social learning processes in the Horn River Basin. The second research question asked how shifts in water governance structures and processes are affecting opportunities for First Nations to realize their goal of self-determination. This research question was addressed through objectives aiming to describe FNFN’s New Approach to water governance, to assess the New Approach as a water governance innovation and to determine the extent that the New Approach includes Indigenous voices in water governance.

Research Findings

In Chapter 1, I reviewed literature on water governance, collaborative governance and First Nation peoples’ goal of self-determination. I discussed the intersection of these concepts in the context of BC, shale gas development, and Treaty and Aboriginal Rights and Title. In doing so, I established that while the literature argues that environmental conflicts require complex solutions involving diverse actors and types of knowledge, governance experiments seeking to include Indigenous actors and ways of knowing have failed to do so adequately.

In Chapter 2, I explore ideas of how the historical context created through colonialism affects social learning processes in the realm of water governance. This research reveals three main barriers to social learning between the Fort Nelson First Nation and the crown. First, FNFN and the Crown have different interpretations of what was agreed to with the signing of the Treaty and of what Aboriginal rights and title mean. In social learning literature this is called “problem framing” requiring actors to engage in a reframing process where actors come up with a shared understanding of the problem or
issue. Second, First Nations don’t believe that consultation processes are legitimate. These findings show that legitimacy was eroded because First Nations were excluded from key decisions, their power blocked by a perceived bias in the provincial government as facilitator of consultation. Lastly, due to a lack of shared problem framing and a lack of legitimacy, consultation has become “a check box” that the provincial government and First Nations are obliged to participate in due to the duty to consult, but has little use as a vehicle for the inclusion of First Nations and their perspectives, knowledge and concerns in governance.

In Chapter 3, I explore shifts in water governance structures and processes that are occurring by examining FNFN’s New Approach to water governance and shale gas development with the oil and gas industry and analyse the extent that the New Approach includes Indigenous voices in water governance. The findings show that the New Approach can be considered a water governance innovation that sees changes at the sites of authority, the flows of financial revenue, and in the norms, beliefs, or knowledge base. While operating in a colonial context where social learning processes are hindered, new opportunities for collaboration are created when FNFN’s team, including their consultants and industry partners have the necessary relational qualities to create collaborative relationships. The New Approach circumvents provincial government consultation processes by sharing project management between FNFN and the oil and gas industry. Industry hires FNFN on a fee-per-service basis to conduct research design and monitoring, incorporating their values more directly into baseline studies. Economic opportunities are leveraged by receiving not only direct economic revenue streams but also funding through the fee-per-service model. In this way FNFN’s economic benefits are not solely dependent on production, but also on environmental planning and protection. Further analysis reveals that the New Approach offers more autonomy in decision-making and a greater opportunity for Indigenous values to be included in water governance. However, the New Approach circumvents the provincial government, replacing a dependency on the provincial government with one on industry. While the New Approach provides an opportunity to build power, economic independence and capacity, if goals of self-determination are to be achieved, equal effort must be placed on
developing internal capacity to support the redevelopment of Indigenous culture and values.

**Limitations**

This study had several limitations. The first was the length of fieldwork. The original vision was to conduct fieldwork in Fort Nelson for four-six months, but due to the cost of travel and accommodation, this was limited to a six-week period, which may have curtailed my ability to understand FNFN culture and context where I conducted my research. As a non-Indigenous researcher this is troublesome, as I depend on an understanding of FNFN culture and context to provide an accurate interpretation of First Nation participants’ words. I have attempted to address this limitation by presenting quotations verbatim whenever possible rather than paraphrasing or summarizing. The research design also allowed for on-going data analysis, providing opportunities to test my interpretations of data with new participants. Ultimately, although I was conscientious and thoughtful in my reporting, I do not claim to speak for the Fort Nelson First Nation, but only offer my own interpretation of the data.

The length of time in the field also contributed to the second limitation: access to participants. While doing community-based research, forming relationships with participants is vital to accessing quality data. My short time in the field limited my access to community members. I had originally planned on interviewing Fort Nelson First Nation elders in attempt to gain a Dene and Cree perspective to necessary conditions for social learning. My interactions with community members was limited to those who worked or frequented the Fort Nelson First Nation Lands Department (FNFNLD) as that is where I spent most of my time. Though I did attend several community meetings and social events, I did not feel it appropriate to ask for interviews when I didn’t have time to form relationships. One comment that had come up in early interviews was that community members, especially elders had “interview fatigue” from industry-hired consultants attempting to gather data for traditional use studies. I was also aware that the two other students I was with also were hoping for interviews with community members and was careful of our cumulative impacts as researchers in the community. I did interview two non-FNFNLD community members, which I did in collaboration with another graduate student in an attempt to limit what we asked of participants.
I also experienced limits to the participation of industry and colonial government participants. Although I contacted 21 different people in the provincial government, only 5 followed through. Several times I did receive replies, but was often forwarded on to the same few people. Frustratingly, the OGC, who deals with the bulk of the water referrals, forwards all inquiries for comment through their communication officers. I was allowed to speak to one OGC employee, however they were not directly involved with FNFN.

Even more difficult was obtaining access to industry. It was challenging to find industry contacts without a direct introduction. There were five companies in particular that I was interested in exploring. Lana was my gatekeeper, and I was largely dependent on her for introductions. She did give introductions to three companies and two of them followed through. During the data collection period of the Summer and Fall of 2013, FNFN was still finalizing the negotiations with Apache about the New Approach. For that reason, access to Apache was limited. Due to the limitations of participants, my research is largely from the perspective of FNFNLD. I have tried to design my articles to reflect this. I sought to further understand industry and provincial government perspectives by attending an Environmental Appeal Board hearing where testimony by both parties and written correspondence was examined to reveal their role and attitudes towards including FNFN in water governance processes.

**Contributions to the literature**

My thesis aims to contribute to efforts towards creating equitable and sustainable water governance systems. Specifically, my research aims to contribute to our understanding of how First Nations participate in water governance, what barriers prevent social learning from occurring among actors and what new opportunities are emerging through water governance innovation. This research provides insights about the implications of the historical context of governance, its effects on social learning and the inclusion of Indigenous voices and ways of knowing in water governance. While my research does not propose a new theory, it makes important contributions that advance our thinking on existing theories in three areas.
Contributions to social learning theory

The findings speak to the importance of examining the historical context of water governance in any social learning process. The development and application of social learning processes in water governance research to build collaboration among watershed actors has occurred mostly in Europe. Research studies in Europe create processes that participants engage in to create social learning. For social learning to occur in the governance system, those participants share their learning with their own communities of practice. My research finds that the historical constraints of colonialism do not appear to allow for shared understanding among individuals and into the community of practice. Therefore, social learning is limited and the goal of collaboration is hindered. This finding suggests that future research on social learning in Canada could focus on how to support social learning among relatively inflexible institutions.

Contributions to collaborative governance theory

One of the biggest critiques of collaborative governance models is that it is based on a principle of equality among stakeholders, which is incongruent with First Nation goals of self-determination. In an effort to include diverse actors and knowledge types, First Nation voices and ways of knowing are marginalized in governance structures and processes that privilege non-Indigenous voices. My research presents a governance innovation that attempts to address this criticism by including First Nations in a central governance role and pushing the provincial government to the outskirts. Findings show that the governance innovation does contribute to increased self-determination, but further emphasis on the decolonization of governance is needed to fully realize its goal.

Contributions to policy

Water governance and environmental governance literature more generally, has called for the inclusion of First Nations decision-making. This has been echoed by First Nations in BC, who have clearly articulated their desire and right for a central role in water governance. The perspective of the Supreme Court is shown through case law, which increasingly supports this perspective. Provincial government policy, while acknowledging the importance of including First Nations in water governance, tends to limit the ways First Nations can participate by defining the rules and limits of First Nation involvement, while also maintaining the final say in decision-making. Two recent
changes in BC’s legal context of water governance have occurred. The first was the June 2014 Tsilhqot’in question, which encouraged industry to obtain consent from First Nations to ensure a certain future and avoid risk of future lawsuits and delays. The second was the enactment of the Water Sustainability Act of 2014, which has enabling legislation for the formation of alternative forms of governance that include First Nations. This research emphasizes that the goal of collaboration cannot be achieved between First Nations and the Crown until a shared understanding of the applicable Treaty, Aboriginal Rights, and Title is achieved. Therefore, any new collaborative governance initiatives under the Water Sustainability Act (2014), will require reframing processes. The research findings suggest that in the absence of reframing processes, new governance innovations are emerging, that exclude the provincial government. An important direction for future research will be to evaluate emerging governance arrangements and the extent that they are successful in appropriately including First Nations.

**Final Words**

With this thesis, I have tried to characterize FNFN’s experience as a Treaty 8 nation and an actor participating in the governance of water and resources in their territory. As a Treaty 8 nation, FNFN’s relationship to the Crown is unique. The Duty to Consult is a constitutional obligation and its in place as a means to protect Aboriginal and Treaty Rights. The consultation process is supposed to be a safeguard to ensure that while Canada/BC is perusing its interests, the rights of Aboriginal peoples are also protected. My research highlights quite a different reality in that not only does the First Nation in this case study not feel that their rights are protected, but they also do not believe they are understood. I emphasize that the obligation that FNFN has to participate in a consultation process that they do not feel has legitimacy, is preventing social learning and innovative solutions from occurring between FNFN and the provincial government.

Any consultation process should have a clear framework that is co-created with a First Nation and the Province; the Province must make efforts to understand and address a
First Nation’s concerns and rights and; the Province should demonstrate to a First Nation specifically what information was used to make a decision. That being said, consultation itself is not, nor should it be, shared decision-making framework. In the absence of a shared decision-making model between the Province and FNFN, a Treaty nation, with a shared responsibility in the governance of land and water in Treaty 8 territory, consultation has became the next-best proxy, until the New Approach. This leads to questions about industry’s role in governance and warrants a closer examination.

Actors’ roles in water governance are changing in BC. The frustration FNFN felt over the lack of influence they have in resource development in their community, seems to be a feeling experienced by other First Nations in BC, as well as small towns in remote BC. People from these places can sometimes feel invisible, despite the very visible and significant environmental impacts from industry evident on their land. Increasingly, industry is taking on procedural aspects of consultation. Industry’s role in the consultation process must be explicitly defined, so that all actors are understand industry’s role and are in agreement of what constitutes appropriate and meaningful consultation. Industry is increasingly providing scientific data upon which decisions affecting the public interest in water are made. This professional reliance model, which is not unique to water but increasingly common across all resources, requires increased oversight. In data poor areas, like northeast BC, this is especially important, as there are little other data to draw from. In the absence of industry-wide standards or qualifications for consultants, industry can increase a First Nation’s trust in scientific findings, by hiring a consultancy approved by that First Nation. An even better approach is to work directly with a First Nation in the design of development plans for any resource in that nation’s
territory. Industry’s role in governance deserves more attention as they have significant influence in how resource development is occurring in BC, but do not have an obligation, as the Province does, to do so in the public interest.
Bibliography


Constitution Act (1982).


Finewood, M., & Stroup, L. (2012). Fracking and the neoliberalization of the hydro-social cycle in Pennsylvania’s Marcellus Shale. *Journal of Contemporary*


Koster, R., Baccar, K., & Lemelin, R. H. (2012). Moving from research ON, to research with and for Indigenous communities: A critical reflection on community-based


Environmental Planning and Management, 51(3), 325–344. Retrieved on February 01, 2013 http://doi.org/10.1080/09640560801977190


Appendix A
Sample Interview Questions

Government Participant
1. Can you tell me a bit about your background, what your role is at [ORGANIZATION] and describe the kind of work that you do?

2. What kind of role does [ORGANIZATION] have in decision-making around water use in Northeast BC?

3. How are decisions made? What kind of information is used? What is the process?

4. How is Indigenous knowledge considered in decisions about water use in the Horn River Basin and Liard River Basin?

5. What are the strengths and weaknesses of how decision-making is currently occurring?

6. Do you feel that decision-making is balanced? Balances social, cultural, environmental concerns with economic opportunity?

7. What are the challenges/benefits of trying to include community perspectives in decision-making?

8. In your view, who are the “actors” (people, stakeholders, groups of people, organizations) in northeast BC that are involved in decision-making (in water/resources)?

9. How would you characterize the relationship between the government and industry?

10. How would you describe the government’s relationship with First Nations?

11. If there is conflict with a First Nation, a disagreement – how do you go forward?

12. What role (if any) do informal relationships play a part in decision-making?