

Reconciling Indigenous governance in marine spaces: Mi'kmaq engagement in tidal energy in  
the Bay of Fundy, N.S.

By

*Taylor Emma Brown*

Submitted in partial fulfillment of the requirements for the degree

of

Master of Marine Management

at

Dalhousie University

Halifax, Nova Scotia

January 2018

©*Taylor Emma Brown, 2018*

## Table of Contents

LIST OF TABLES.....	4
LIST OF FIGURES.....	5
ACKNOWLEDGEMENTS.....	6
ABSTRACT.....	7
Chapter 1: Introduction .....	8
1.1 Issues Context .....	10
1.1.2 Tidal energy in Nova Scotia.....	11
1.1.3 Mi’kmaq interests in Nova Scotia .....	12
1.2 Objectives and methodology.....	13
Chapter 2: Canadian Governance in Marine Space .....	15
2.1 Canadian governance .....	16
2.2 Federal context.....	17
2.2.1 Indigenous and Northern Affairs Canada .....	17
Indian Act (R.S.C., 1985, c. I-5).....	17
2.2.3 Department of Fisheries and Oceans .....	18
Fisheries Act (R.S.C., 1985, c. F-14) .....	18
Atlantic Integrated Commercial Fisheries Initiative (AICFI) .....	20
Oceans Act (S.C. 1996, c. 31).....	20
2.2.4 Environment and Climate Change Canada .....	21
Species at Risk Act (S.C. 2002, c. 29) .....	21
2.2.5 Canadian Environmental Assessment Agency .....	21
2.3 Provincial Context .....	23
2.3.1 Nova Scotia Department of Energy.....	23
2.3.2 The Office of Aboriginal Affairs .....	24
2.3.3 The Assembly of Nova Scotia Mi’kmaq Chiefs .....	24
Kwilmu’kw Maw-klusuaqn Negotiation Office (KMKNO) .....	25
Chapter 3: Indigenous Governance in Marine Space .....	26
3.1 Indigenous Governance.....	26
3.2 Mi’kmaq governance system .....	27

Chapter 4: Reconciling collaborative governance in marine spaces .....	28
4.1 Reconciliation .....	28
4.2 Integrating international UNDRIP into national legislation.....	29
4.3 Examples of collaborative governance in marine space .....	31
Chapter 5: Incorporating traditional knowledge systems into marine governance.....	32
5.1 Incorporating traditional knowledge into governance .....	32
5.2 Incorporating traditional knowledge into marine governance .....	34
Chapter 6: Mi'kmaq engagement as a mechanism to make collaborative management decisions in tidal energy development in the Bay of Fundy.....	36
6.1 Context .....	36
6.2 Importance and purpose of meaningful engagement .....	37
6.3 Legal reasons .....	38
Chapter 7: Encouraging sustainable development practices in tidal energy development: A framework for strategic engagement.....	42
7.1 A framework for strategic engagement practices .....	42
7.1.2 - 1 <sup>st</sup> Pillar: Building relationships.....	43
7.1.3 - 2 <sup>nd</sup> Pillar: Analyzing the risks.....	45
7.1.4 - 3 <sup>rd</sup> Pillar: Engagement.....	46
7.1.5 - 4 <sup>th</sup> Pillar: Agreements .....	47
7.2 Lessons learned based on project success of the Tahltan Nation in British Columbia.....	49
Chapter 8: Concluding thoughts .....	51
Recommendations .....	52
Bibliography .....	53

## LIST OF TABLES

Table 1: Differences between traditional and western knowledge systems.....	24
Table 2: Internal and External components of a communication plan.....	43

## **LIST OF FIGURES**

Figure 1: Ethical Decision Criteria for proponents involved in decision-making with Indigenous Nations.....	41
Figure 2: A framework for proponent success in engaging with Indigenous nations in Marine renewable energy and resource development projects.....	47

## **ACKNOWLEDGEMENTS**

Thank you to the Marine Affairs faculty for providing me with the opportunity to be part of the Dalhousie Graduate program and establishing such a great interdisciplinary Master's program. Thank you to Carys Burgess and the rest of the team at Cape Sharp Tidal for hosting me as an intern, a lot of the research regarding current tidal energy practices in Nova Scotia and First Nations engagement would not have been possible without your help. Thank you to all those I spoke with informally, especially those that endorsed salsa dancing as a stress reliever. Each of you inspired me to put my best effort forth in providing something meaningful for others to read. Thank you to friends and family who let me talk their ears off about my research, I would not be in this position if it were not for your laughter and love. Last but certainly not least, thank you to Chris Milley for believing in me and continuously inspiring me to be my best self; I could not emphasize enough how much your passion in this field has helped to keep me motivated.

## **ABSTRACT**

As the activities in coastal and marine spaces in Nova Scotia continue to increase, the spatial availability for new development is becoming much more challenging. The shift toward renewable energy has sparked industry to begin the development of In-Stream tidal energy in the Bay of Fundy. Although space is limited, the potential of the development's contribution is being considered to meet the renewable energy targets set in Nova Scotia's Renewable Electricity Plan. Managing conflict with other marine users in the Bay of Fundy has become one of the biggest challenges in implementing marine renewable energy. Therefore, significant management decisions about the spatial planning of the Bay of Fundy should be made to ensure its sustainability for current and future generations.

Management decisions that are made from a co-governance perspective can help to identify and mitigate issues. Involving Indigenous governance in managing marine spaces can assist the federal government toward reconciling a nation-to-nation relationship that has been discussed in both the public media and federal mandate. In addition, to reconcile and develop the nation-to-nation relationship with Indigenous peoples in marine spaces, it will be necessary to develop a standard of meaningful engagement for both government and industry. This research explores the importance of reconciling indigenous governance in the Bay of Fundy and highlights the necessity for meaningful engagement with Indigenous nations on behalf of the proponent in the development of the emerging tidal energy project in the Bay of Fundy, Nova Scotia.

## Chapter 1: Introduction

Indigenous people's history with the nation state is a history of inequality. There is a strong need to reconcile the relationship between Indigenous people and the Canadian government for past injustices. For this reason, the government of Canada has made it part of their mandate to focus on renewing and reconciling a nation-to-nation relationship by making amendments to current legislation and policies into more cohesive and inclusive ones (Government of Canada, 2017a). One step in the right direction was Canada's endorsement of the United Declaration on the Rights of Indigenous Peoples (UNDRIP), an international declaration that was created to recognize and protect Indigenous nations in many countries. Although UNDRIP is currently a non-legally binding document, its implementation in legislation could address a number of issues between Indigenous people and the nation state.

In Nova Scotia, the federal and provincial government worked collaboratively with the Mi'kmaq nations to create a framework that sets out important procedures and negotiation processes for reconciliation. This Framework Agreement defined what it meant to be part of a tripartite relationship in Nova Scotia. It continues to resolve issues related to Mi'kmaq treaty rights and Indigenous title and Mi'kmaq governance (Government of Nova Scotia, 2007). Stronger tripartite relationships between federal government, provincial government and Indigenous nations have become increasingly discussed within public media and literature.

As development increases, the necessity to involve Indigenous governance in decision-making is an important aspect of building the existing relationships with Indigenous nations (TRC, 2015). Western knowledge has advanced into Indigenous Peoples' communities with little consideration for the concepts of Indigenous knowledge and self-governance. Knowledge is the fundamental tool of how we make decisions. These knowledge systems are what guide the way we govern society and the space within society. Western knowledge systems and styles of governance often use top-down approaches and rely heavily on science (Ellis, 2005). Integrating both styles of knowledge can help Indigenous nations reclaim their voice in the way that the Canadian government manages space.



In 1982, Canada patriated its Constitution. This transferred the country's highest law, the British North America Act, to Canada's federal and provincial legislatures. During this time, the adoption of the Charter of Rights and Freedoms recognized and affirmed the rights of Indigenous peoples in section 35 of the Constitution Act (*Canadian Constitution Act, 1982*). Numerous treaties, land claims and self-government agreements have been negotiated since the time of first European contact. Overtime, the colonial government suppressed Indigenous peoples and their treaty rights (TRC, 2015). Many of the current legislations still do not properly acknowledge rights of Indigenous people. This often leads Indigenous peoples to force their own rights in courts. It was not until 1990 that the Supreme Court of Canada applied section 35 of the Constitution Act, 1982, to a legal court decision. Following that, many Indigenous peoples have taken their rights to court when they are infringed upon. However, the process by which Indigenous peoples have to prove those inherent rights can take years and can have significant costs.

On paper, the legal requirements regarding the Duty to consult should be simple. The Crown has a duty to consult with Indigenous peoples when there is contemplated crown conduct, potential adverse impacts on the Indigenous peoples and their established treaty rights recognized and affirmed under s.35 of the *Constitution Act, 1982* (Government of Canada, 2011). However, in practice, the duty to consult becomes more difficult since the Crown is able to legally delegate some of the administrative tasks to proponents (*Haida Nation v. British Columbia*, 2004., & Government of Canada, 2011). Moreover, the Proponent's Guide, developed by the Office of Aboriginal Affairs with help of the Assembly of Nova Scotia First Nations, gives proponent's the most basic steps to engage with First Nations in Nova Scotia (Office of Aboriginal Affairs, 2012). For some proponent's, engaging with Indigenous nations could be just a matter of crossing it off the list of "to do's". For others proponents there are an increase of interests in looking for meaningful ways to engage and involve Indigenous communities in the development of the new industry. Therefore, there is a need to define the role of the proponent regarding consultation and engagement measures with Indigenous nations and resource development. In addition, developing a standard for meaningful

engagement for both government and industry can help eliminate conflict and provide better management decisions in marine spaces.

The purpose of this research is to understand the importance of collaboration between traditional and western governance systems. In addition, it will address how proponents in tidal energy development in Nova Scotia can lead by example and improve the tripartite relationship by meaningfully engaging with Mi'kmaq nations. Engaging with Indigenous people, particularly the Mi'kmaq of Nova Scotia will be a critical component in the success of the tidal energy project in the Bay of Fundy.

### *1.1 Issues Context*

The earth is facing severe anthropogenic climate change impacts (IPCC, 2014). A lot of what we do as humans requires fossil fuels, such as oil and coal, which drives up the CO<sup>2</sup> concentrations (Charles, 2012). Fossil fuels are non-renewable energy sources and emit harmful pollutants into the atmosphere and cause environmental degradation. One of the most serious consequences is the irreversible effects that burning fossil fuels have on the climate and its contribution to global warming (Devine-Wright, 2011). This consequence has caused many countries to shift the way they generate energy and make commitments toward reducing their output of greenhouse gas (GHG) emissions. It is likely that using fossil fuels as a source of energy will not be able to sustain future generations to come. However, given that they are a product of almost everything that consumers use, it seems highly unlikely that society will stop using them all together. The more we focus our efforts on renewable energy to generate electricity, the less we rely on fossil fuel sources to sustain future generations.

As climate change continues, the way that society currently manages the earth's resources will need to change. Developers in marine renewable energy are seeking out the best places to sustain marine renewable energy (Kerr, 2015 and Krupa, 2012). Marine renewable energy (MRE) is the energy produced from the ocean's tides waves and river currents and these movements create electricity. According to Natural Resources Canada, MRE will be available for as long as the tides continue to ebb and flow and the rivers run (Natural Resources Canada,

2017). In return, this also reduces the dependence on fossil fuels. However, it can only reduce the dependence on fossil fuels if the MRE industry is accessible and realistic for consumers.

As an emerging industry, developers are facing several challenges. However, of all the challenges, the one they are facing the most trouble with is managing the conflicts of multiple users (Carys Burgess, personal communication, June 8, 2017). In addition, this conflict causes concern for the livelihoods of local and indigenous communities that use the marine space for traditional uses, such as fishing. The demand for rights over territory in marine spaces is increasing, especially in the context of marine renewable energy. As developers require exclusive rights over resources and space, it will exclude other users, such as Indigenous nations (Kerr, 2015). This creates a rights-like occupation of the marine space by developers and presents a challenge to the traditional concepts of rights for marine spaces. By privatizing a common good, marine renewable energy is creating potential conflict with traditional users that have private (and public) rights (Kerr, 2015).

### *1.1.2 Tidal energy in Nova Scotia*

Nova Scotia's energy mix is primarily dominated by coal. The demand for renewable energy and particularly marine renewable energy has increased in order to meet the province's commitments under the Renewable Electricity Act. The Bay of Fundy is home to some of the highest tides in the world. These factors contribute to the increase in demand for marine renewable energy in Nova Scotia as it is seen as the ideal location. The users of the Bay of Fundy are from many different sectors. As the scope of tidal energy increases, the room for the existing users is becoming increasingly scarce. Therefore, management of this marine space requires significant attention, especially if it is likely that marine renewable energy will be commercialized for the use of future generations. Despite some coastal communities (particularly traditional fishermen and indigenous peoples) not agreeing with marine renewable energy development, there continues to be a push for research and development (R&D) (NSDE, 2012). The research on marine renewable energy in the area has been heavily focused on in-stream tidal energy in the Bay of Fundy. In-stream tidal energy is produced by the rise and fall

of tides. The movement of water powers turbines that are beneath the water's surface (Government of Canada, 2017).

To help progress in-stream tidal energy development, the Fundy Ocean and Research Center for Electricity (FORCE) was established. FORCE oversees the berth holders in the R&D phases of development and conducts research to better understand the site conditions of the Minas Passage in the Bay of Fundy. The types of in-stream technology being proposed by all five of the berth holders are different. This creates a lot of confusion between developers and the communities and users of the Bay of Fundy. For this reason, and other technical reasons, there has been only one successful deployment into the area by one developer.

Cape Sharp Tidal is a joint venture between Open Hydro and Emera exploring the development of in-stream tidal energy in the Minas Passage in the Bay of Fundy. Cape Sharp Tidal was the first berth holder to put their technology in the water. There are several advantages to being the first to place a new development in a marine space, such as being the sole occupant for that industry in the market. Cape Sharp Tidal has the ability to lead by example and create meaningful relationships with the Mi'kmaq nations in Nova Scotia.

### *1.1.3 Mi'kmaq interests in Nova Scotia*

Since the time of their first contact, Mi'kmaq communities have used the saltwater environments of the Bay of Fundy, N.S. They heavily depended on the rivers and ocean for subsistence. Moreover, Mi'kmaq peoples are culturally rooted in Nova Scotia because this is where their culture evolved, as can be heard through the legends of Kluskap (Gooscap) (OERA, 2009). Over the years of human occupation, there have been dramatic climate and environment changes. Mi'kmaq nations were once all nomadic, living in primitive conditions, with a different set of knowledge and governance than European newcomers. The first arrivals of European contact were by sea. At first, the Europeans did not establish settlement. Instead, they had seasonal camps and returned to their homelands during the winter. Indigenous people however, remained nomadic during all seasons and continued to live as part of the land.

When the Europeans wished to establish settlement in Nova Scotia, both France and Britain struggled for colonial domination. The Mi'kmaq had occupied many parts of Nova

Scotia, New Brunswick, the Gaspé, Prince Edward Island, Maine and Newfoundland. The Mi'kmaq had made allies with France and fought to keep the British from taking over their territory. As France and Britain fought to gain control over the Atlantic Provinces, the Mi'kmaq nations struggled to demand rights over their territory (Paul, 2006). After years of fighting, the Mi'kmaq signed a series of Peace and Friendship treaties beginning in 1725. These treaties gained the right legal status when they were enshrined into the Canadian Constitution in 1982.

In modern day, Mi'kmaq nations that are part of the Assembly have expressed direct interest in participating in renewable energy projects in Nova Scotia. In 2010, the Mi'kmaq acquired a development fund that invested in Mi'kmaq renewable energy projects. Shortly after, in 2011, the Assembly of Mi'kmaq First Nations presented a Mi'kmaq Renewable Energy Strategy in effort to lower their carbon footprint and find a balance between sustainability and development (Mi'kmaq Rights Initiative, n.d.). The strategy also addressed protocols to affect legislative change affecting the renewable energy sector and the Mi'kmaq. In addition, the province has enacted changes to the Electricity Act that allow the Mi'kmaq to develop projects on lands that they hold within and beyond the Indian act (Mi'kmaq Rights Initiative, n.d.).

In September 2016, KMKNO voiced the concerns on behalf of the Assembly on the use of In-stream tidal energy in a press release. Those concerns included the loss of use in marine areas, displacement of Mi'kmaq fishing, potential impacts to fish, fish habitat and fish migration and a lack of meaningful inclusion of traditional ecological knowledge studies (KMKNO, 2016). These areas of concern may be mitigated if there is an increase in meaningful engagement by the proponent with the Mi'kmaq nations.

## *1.2 Objectives and methodology*

This research aims to answer the following questions;

- 1) How can Indigenous nations help the Canadian government manage marine space?
- 2) How can a tripartite relationship develop collaborative management decisions?
- 3) Why and how should industry meaningfully engage with Mi'kmaq nations in tidal energy development?

- 4) Can Mi'kmaq engagement be used as a mechanism for tidal energy development in the Bay of Fundy, Nova Scotia?

The methodology undertaken for this research comprised of three major data collection elements. These included a comprehensive legislation review, a literature review and informal meetings with various stakeholders in industry and government. It is important to note that due to the scope of this research, there were no meetings held with any Mi'kmaq First Nations Chiefs in Nova Scotia, which may be an important aspect to consider in further research regarding Mi'kmaq engagement and tidal energy development.

## Chapter 2: Canadian Governance in Marine Space

Governance is the processes of decision making between authorities that lead to the creation and enforcement of laws, social norms and institutions (Emerson et al., 2012). The responsibility of a government is to make the binding decisions for a particular geographic location by establishing laws. Governance can take many forms that can be driven by many different motivations. Governance involves decision-making, this includes not just the decisions themselves, but the processes that are used, what should be considered, who makes the decisions and at which level(s) are they made (Emerson et al., 2012).

As the federal government discusses the concept of a nation-to-nation relationship with Indigenous nations, a shift in governance toward collaborative governance systems that allow for Indigenous nations to be involved in decision making processes is becoming increasingly more prevalent in the literature and the public media (Nursey-Bray and Jacobson, 2014 & Galbraith, 2014). A collaborative governance structure should be a joint effort in decision making between Chiefs in assembly and government ministers. Creating this new approach in the current governing system could result in a restored future between the Indigenous and Canadian government. The departments listed below have the opportunity to collaborate with the appropriate Indigenous governance structures to develop a stronger nation-to-nation relationship. In addition, the appropriate Indigenous governance structures will have to be defined by Indigenous peoples themselves. Due to the scope of this research, only select departments and the appropriate regulatory frameworks are discussed that highlight the importance in reconciling indigenous governance in marine spaces.

Indigenous and Northern Affairs Canada (INAC)  
*Indian Act (R.S.C. 1985, c. I-5)*

Fisheries and Oceans Canada (DFO)  
*Fisheries Act (R.S.C., 1985, c. F-14)*  
*Aboriginal Fishing Strategy (AFS)*  
*Aboriginal Aquatic Resource and Oceans Management (AAROM)*  
*Atlantic Integrated Commercial Fisheries Initiative (AICFI)*  
*Oceans Act*

Environment and Climate Change Canada  
*Species at Risk Act (S.C. 2002, c. 29)*

Canadian Environmental Assessment Agency  
*Canadian Environment Assessment Act (CEAA)*

Nova Scotia Department of Energy  
*Marine Renewable Energy Act (Province of Nova Scotia)*

Office of Aboriginal Affairs  
*Proponents Guide*

The Assembly of Nova Scotia Mi'kmaq Chiefs  
*Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO)*

## *2.1 Canadian governance*

Canada is a constitutional monarchy, which means that the Prime Minister is recognized as Head of Government and the queen as the Head of State. Canada is a federation, which means that powers are shared between federal and provincial governments. The crown is the foundation of three branches of Canadian government, known as the executive, legislative and judicial branches. These three branches work together to help govern the country together.

The Cabinet presents government policies and priorities to the Parliament (the Senate, House of Commons and Prime Minister). A group of Ministers make up the cabinet, each minister has a department located within each province and each department oversees affairs within every province, reporting back to the cabinet.

In 1982, Canada patriated its Constitution. This transferred the country's highest law, the British North America Act, to Canada's federal and provincial legislatures. During this time, the adoption of the Charter of Rights and Freedoms recognized and affirmed the rights of Indigenous peoples in section 35 of the Constitution Act (*Canadian Constitution Act, 1982*). Despite s.35 of the Constitution Act, Indigenous people in Canada have still had to assert their rights and title. Due to the complexity of Indigenous people's history in Canada, Indigenous affairs are often deeply intertwined within every department. Indigenous relations often become sectoral focused, creating a "silo" effect in management. The government of Canada has made it part of their mandate to focus on renewing and reconciling a nation-to-nation



relationship by making amendments to current legislation and policies into more cohesive and inclusive ones (Government of Canada, 2017a).

## *2.2 Federal context*

### *2.2.1 Indigenous and Northern Affairs Canada*

Indigenous and Northern Affairs Canada (INAC) supports the three Indigenous groups (First Nations, Inuit and Métis) in Canada and northern peoples. INAC is one of the 34 federal governments that are responsible for meeting the federal government's constitutional responsibilities. Their responsibilities are determined by negotiated agreements, the Indian Act, the Canadian Constitution and other relevant legal decisions (Government of Canada, 2017b).

A new approach toward the collaboration of two nations was by the government of Canada when they separated the Indigenous and Northern Affairs department into two different sections. In early September of 2017, the government of Canada announced the end of INAC and proposed a new approach in the relationship between Canada and First Nations. INAC was divided into two sections; there is now a minister responsible for Indigenous-Crown relations and another responsible for Indigenous Services focusing on delivering the much needed services to indigenous peoples (Chris Milley, September 8, 2017).

### *Indian Act (R.S.C., 1985, c. I-5)*

The Indian Act is a Canadian Act of Parliament that deals with Indigenous peoples in Canada. The act was first passed in 1876 and was the beginning of the governed interaction between the Canadian state and the First Nations bands in Canada (*Indian Act, 1985*). The act itself has been amended. The original act was created as Canada's intent to assert its authority with Indigenous peoples. It had claim over how reserves and bands could operate, and also defined who was and was not recognized as an "Indian". Individuals were either recognized as "registered" or "status" Indians. The Indian Act had significant impact on Indigenous people's cultures. It was not until 1985 that the provisions were amended through Bill C-31. Bill C-31 was an act to amend the Indian Act. Bill C-31 brought the Indian act into line with the provisions of

the Canadian Charter of Rights and Freedom. Moving forward, Indigenous rights under s.35 of the Constitution Act were to be upheld by the Canadian government.

An approach that the Assembly of First Nations has long been advocating for is to become separate of the Indian Act and co-exist alongside the federal government (Royal Commission on Aboriginal Peoples, 1996). Recognizing and implementing rights, title and jurisdiction will achieve greater attention with a separate department that is able to deal solely with Indigenous nations. Although this is great progress in the history of Canadian governance with First Nations, the country will need to move forward in this process by collaborating with the Assembly of First Nations to begin making these decisions together.

### *2.2.3 Department of Fisheries and Oceans*

The Department of Fisheries and Oceans Canada has the lead federal role in managing Canada's fisheries. Their work is guided by five pieces of legislation; The Oceans Act, The Fisheries Act, Species at Risk Act, Coastal Fisheries Protection Act and the Canadian Shipping Act. They support strong economic growth, innovation and sustainable aquatic ecosystems.

#### *Fisheries Act (R.S.C., 1985, c. F-14)*

The Fisheries Act is an act of parliament. The legislation focuses on the proper management and control of the fisheries, conservation and protection of the fish and protection of fish habitat, as well as the prevention of pollution. Regulations in the Fisheries Act can apply to tidal energy and indigenous relations quite extensively, especially for those nations that fish for food, social and ceremonial purposes (*R.v. Sparrow*, 1990). Recent proposed changes to the act are to restore protections on fish and fish habitat, such as enabling responsible development around habitat through clearer permitting and codes of practice. The proposed changes also plan to advance reconciliation with Indigenous people by requiring the considerations of Traditional Knowledge and adverse effects on the Indigenous rights and title. Moreover, partnering with Indigenous peoples has been proposed as a way to enable Indigenous peoples to participate in monitoring programs and project reviews (DFO, 2018). The

proposed changes could have significant impact for the reconciliation of Indigenous nations in marine spaces.

### *Aboriginal Fishing Strategy (AFS)*

The Sparrow decision (1990) was a Supreme Court of Canada decision that resulted in the Aboriginal right to fish and hunt for food, social and ceremonial purposes (*R.v. Sparrow*, 1990). A member of the Musqueam First Nation appealed his conviction on a charge of fishing with a longer drift net than permitted by the terms of the bands fishing license under the Fishing Act. His argument was that the restriction on the net length was invalid because it was inconsistent with the terms in s.35 of the Constitution Act, 1982. It was the first Supreme Court of Canada decision that applied s.35 of the Constitution Act, 1982. Therefore, it was the first opportunity for the Supreme Court of Canada to interpret what s.35 of the Constitution Act actually meant. In a response to this decision, DFO launched the Aboriginal Fishing Strategy (AFS) as a need to create stability within Canadian fisheries management. AFS is a program that aids in the development of fisheries agreements between DFO and Indigenous peoples (Government of Canada, 2012a). Its objective is to provide Indigenous people with the opportunity to participate in the management of fisheries. The program has resulted in better monitoring of Indigenous fishing, improved cooperation and enforcement and more selective fishing (Government of Canada, 2012a). However, there is room for improvement in inclusive decision making moving forward.

### *Aboriginal Aquatic Resource and Oceans Management (AAROM)*

The Aboriginal Aquatic Resource and Ocean Management (AAROM) framework is yet another program by the DFO that provides federal funding to qualifying Indigenous groups to establish aquatic resource and oceans management bodies. The program was developed out of response to a number of issues in the AFS. The goal of AAROM is to help Indigenous groups to participate effectively in advisory and decision-making processes within aquatic resource and oceans management (Government of Canada, 2012c). The overall objective of the program is to assist Indigenous groups in acquiring administrative capacity.

### *Atlantic Integrated Commercial Fisheries Initiative (AICFI)*

Donald Marshall Jr. of Membertou First Nation was charged in 1993 for fishing and selling eels without a license, as well as fishing during the closed season. Marshall argued that he had a right to fish and sell through treaty rights. In 1999, the Supreme Court of Canada confirmed that he had a treaty right to catch and sell fish through the Peace and Friendship treaties. In addition, the Marshall decision acknowledged the right of the Mi'kmaq and Maliseet First Nations people to gather and earn a moderate livelihood through their treaty rights to hunt and fish. However, a moderate livelihood is not considered enough to sustain a family. As a result of this, the Atlantic Integrated Commercial Fisheries Initiative (AICFI) was created to assist the Mi'kmaq and Maliseet First Nations that were affected by the Marshall Decision. The affected First Nations communities were given the opportunity to build capacity in commercial fisheries operations and develop governance and business management skills. The initiative gives the Atlantic First Nations a more effective voice in fisheries co-management. Both the AAROM and AICFI constitute considerable leaps forward since the initial effort of the AFS.

### *Oceans Act (S.C. 1996, c. 31)*

The Oceans Act (1997) is an oceans management legislation that was founded on three principles: Sustainable Development, Integrated Management and the Precautionary Approach. The Minister of Fisheries and Oceans is the authorized person to lead and facilitate the development and implementation plans of the act for all activities that affect estuaries, coastal waters and marine waters (Government of Canada, 2017a). Integrated management is a commitment to planning and managing the human activities that take place in the marine environment. To determine the ecological and administrative considerations for integrated management, large ocean management areas (LOMAS) are being considered. LOMAS must have three characteristics; important living and non-living marine resources, high biological diversity and productivity and many stakeholders that compete for ocean space and resources. The closest LOMA to the Bay of Fundy is the Eastern Scotian Shelf (DFO, 2007).

There are many Mi'kmaq communities that still utilize the marine environment on the Eastern Scotian Shelf for commercial and recreational purposes. There is no current use of marine renewable energy on the Eastern Scotian Shelf to use as an example but there are still

plenty of conflicting stakeholders, much like the Bay of Fundy. The use of a collaborative planning model in the Bay of Fundy would be a valuable tool assuming that new development continues.

#### *2.2.4 Environment and Climate Change Canada*

Environment and Climate Change Canada's mandate is to preserve and enhance the quality of the natural environment (Government of Canada, 2017c). As the lead federal department for a wide range of environmental issues, they have created the Pan-Canadian Framework on clean growth and climate change. The framework was established with the provinces and territories, and in consultation with Indigenous nations (Government of Canada, 2017c). The objective is to meet the emission reduction targets while simultaneously growing the economy and building resilience to climate change. The Minister of Environment and Climate Change has shared responsibility for delivering on other federal departments' mandates, including Indigenous and Northern Affairs Canada (Government of Canada, 2017c).

#### *Species at Risk Act (S.C. 2002, c. 29)*

The Species at Risk Act (SARA) is a shared responsibility of Environment and Climate Change Canada and Fisheries and Oceans Canada. The purpose of the act is to prevent wildlife species in Canada from disappearing, to manage species of special concern and to prevent them from becoming endangered or threatened. Consultation and cooperation with Indigenous peoples is an essential part of successfully implementing SARA. The act considered the need to consider traditional knowledge in the assessment of species at risk and in the protection/recovery measures. Indigenous peoples share a long history with wildlife, both spiritually and culturally. As a result of this, there is an Aboriginal Fund for Species at Risk that supports the development of Indigenous capacity to participate actively in the implementation of SARA. Moreover, the act applies to all federal lands (terrestrial and marine). Therefore, it is applicable to development projects in marine environments such as marine renewable energy.

#### *2.2.5 Canadian Environmental Assessment Agency*

##### *Canadian Environment Assessment Act (CEAA)*

The Canadian Environmental Assessment Act, 2012 (CEAA 2012) and its regulations establish the legislative basis for the federal practice of the environmental assessment process in Canada. Environmental Assessments provide decision-makers with information to ensure that projects are compatible with a healthy and sustainable environment. Environmental considerations are taken into account alongside social and economic considerations. Therefore, federal authorities under CEAA consult with Indigenous peoples for a variety of reasons. For example, there is a duty to consult that is required by the crown in any development project that may have an adverse impact on potential or established Indigenous or treaty rights (s. 35 of the Constitution Act).

An important tool that can be used in EA's to create engagement opportunities is the use of Traditional Ecological Knowledge Studies (TEKS). Traditional Ecological Knowledge refers to the evolving knowledge that is acquired by Indigenous peoples over years of direct contact with the environment (KMKNO, n.d.). TEKS are used to gather that knowledge and use it to plan, analyze and report back to project developers, government, non-profit organizations, etc. TEKS are not required. However, many proponents do conduct them as a form of consulting with Indigenous Nations. Often proponents will contract a separate party to conduct a TEK. TEKS should be required in the environmental assessment process because they determine if the project or development infringes on any Indigenous rights. (KMKNO, n.d.). In addition to that, TEKS fill knowledge gaps that may lead to better decision-making (OERA, 2009). Risks that may come with development can be mitigated to avoid any harmful interactions with species, their residence and migratory patterns.

Mi'kmaq nations of Nova Scotia that participated in the creation of the Marine Renewable Energy Mi'kmaq strategy have recommended that TEKS be renewed every five years. In addition, renewal timelines of TEKS should be tailored to the specific project, especially given the changing oceans and coastal areas due to climate change (KMKNO, n.d.). If TEK's are required in the completion of a CEAA, many other risks to social, environmental and cultural aspects of Indigenous nations could be mitigated.

## *2.3 Provincial Context*

### *2.3.1 Nova Scotia Department of Energy*

Nova Scotia's Department of Energy's mission is to serve the interests of Nova Scotians by ensuring that all energy resources are developed and used in a sustainable manner (Government of Nova Scotia, 2017). The sustainable and renewable energy branch develops plans and strategies relating to licensing of renewable energy projects throughout Nova Scotia. They work closely with industry, non-profit, universities and Nova Scotians to implement policies and programs that help the province reach its goal of 40 percent renewable energy by 2020.

#### *Marine Renewable Energy Act (Province of Nova Scotia)*

The Marine Renewable Energy Act governs the development of marine renewable energy sources, including wave, in-stream tidal, ocean currents, offshore wind and tidal range. The act applies to parts within the Bay of Fundy and Cape Breton Island's Bras d'Or lake as those are the two main areas of marine renewable energy priority in the province (Government of Nova Scotia, 2017). Within the priority areas, the province designates smaller marine renewable energy areas (MREAS). These MREAS are only identified after significant research and consultation. An unapproved generator project in a priority area will be in violation of the act.

The Minister of Energy and the department consult with Mi'kmaq on all energy projects through the Mi'kmaq-Nova Scotia-Canada Consultation Terms of Reference. All marine renewable energy projects must recognize the existing Indigenous and treaty rights in section 35 of the Constitution Act, 1982, including the duty to consult, before moving forward in any development project. As interest in marine renewable energy projects progresses, the department of energy encourages developers to directly engage with Mi'kmaq peoples during the earliest stages and throughout the remainder of the project development.

### *2.3.2 The Office of Aboriginal Affairs*

The Office of Aboriginal Affairs (OAA) is an agency of the provincial government of Nova Scotia. As an institution established under the premier's office, they were created to handle matters of Indigenous affairs in Nova Scotia. OAA's mandate is to increase public awareness and educate Nova Scotians on the Mi'kmaq culture and people, and seek to build on the nation-to-nation relationship through intergovernmental practices. They have a considerable amount of influence when it comes to guiding proponents in resource development toward meaningful consultation and engagement measures. OAA is responsible for consulting and engaging with First Nations communities regarding anything that may impact their Aboriginal title and territorial rights under s. 35 of the Constitution Act, 1982. Provincial departments, such as the Department of Energy or the Department of Environment collaborate with the OAA for guidance when consulting and engaging with Indigenous peoples. To increase awareness, the Proponent's Guide was developed by the OAA with the help of the Assembly of Nova Scotia First Nations. The Proponent's Guide provides guidance on First Nations engagement in Nova Scotia (Office of Aboriginal Affairs, 2012).

### *2.3.3 The Assembly of Nova Scotia Mi'kmaq Chiefs*

In 2010, 13 Mi'kmaq communities signed a Framework Agreement. The agreement was between the Mi'kmaq of Nova Scotia, the government of Nova Scotia and the federal government of Canada. The tripartite agreement's purpose was intended to promote efficient, effective and orderly negotiations towards a resolution of issues respecting Mi'kmaq rights and title. The communities involved work as an aggregate body through the Assembly of Nova Scotia Mi'kmaq Chiefs. However, since the agreement was signed in 2010, there have been two communities that choose not to allow KMKNO to speak on their behalf and have pulled themselves from the assembly. This action was caused due to their concern that individual community members had no voice in the current Made-in-Nova-Scotia consultation process (Sipekne'katik, 2016).



*Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO)*

The KMKNO was created out of the Made-in-Nova-Scotia-Process as a way to support the ability of the Assembly to fully guide the negotiations and the implementation and exercise of constitutionally protected Mi'kmaq rights (KMKNO, 2017). It has been recommended by the government for industry to share information with KMKNO. From there, that information gets relayed to the Assembly of First Nations communities. Since all Mi'kmaq nations are not involved with the assembly, it is part of the industry's responsibility to share information concerning development projects to communities. As the number of development projects rise in Nova Scotia, it is likely that First Nations interest will increase as well. As KMKNO's scope expands, it will be necessary for KMKNO to increase their capacity in order to give each project the necessary attention that is required. In addition to that, certain industries are not going to be the focus of First Nations chiefs when they are more likely more concerned with health care, employment and community infrastructure. An increase in capacity is necessary in KMKNO to increase their effectiveness in providing industry (and First Nations Communities) with a network to create meaningful relationships.

## Chapter 3: Indigenous Governance in Marine Space

### 3.1 Indigenous Governance

There are 634 First Nations in Canada, which is only one of the three groups that are recognized as “Aboriginal” under the *Constitution Act* of 1982 (AFN, 2015). Each community has their own specific histories with Canada and their own governance system. To better understand the complexity of the issue, providing a context of Indigenous governance in Canada is a necessary component of this research.

A prevalent view of Indigenous rights is that they are aligned with minority rights. Although they are one of many cultures, their rights are *sui generis*. Indigenous rights come from an entirely different circumstance than those that have settled in Canada over the past few centuries (Von Der Porten, 2012). Prior to colonization, Indigenous people had their own constitution. Indigenous peoples provided their nations with teachings, political philosophies and jurisdictions (Paul, 2006). Each nation created their own unique system of government that often differed from other nations (Von Der Porten, 2012). These governance structures were often set out through a number of documents such as songs, stories, ceremonies and orations. Indigenous nations viewed them as constitutional orders that allowed each indigenous nation to enforce law within a given territory. These constitutional orders were not subject to the authority of another nation (or governance structure), but rather to the people of the nation and those related to the territory (Berneshawi, 1997).

As agreements were negotiated between the newcomers and the Indigenous people, they sought to formalize relationships that created and maintained peace and friendship between the nations. These treaties formalized and negotiated on a nation-to-nation commitment. However, as time proceeded, colonial newcomers ignored the rights and responsibilities (and promises) that were negotiated within the treaties. Colonial governing bodies proceeded to impose their own governance system over indigenous nations to acquire territory (Von Der Porten, 2012). The Canadian government even went as far as to develop

legislation, such as the Indian Act, that directly hindered Indigenous nation's ability to maintain sustainable communities (Truth and Reconciliation Commission, 2015).

### *3.2 Mi'kmaq governance system*

The political organization of Mi'kmaq peoples consists of local, district and grand chiefs. Along with a council of Elders, the local chiefs take care of the Indigenous affairs within their territory and community. District chiefs manage the local chiefs within a particular district and the Grand Chief manages all chiefs. This creates the Grand Council. The Grand Council is the traditional government of the Mi'kmaq nation. Before European contact, the Mi'kmaq Grand council was the sole form of government (Prosper et al, 2011). It has both political and spiritual authority and draws its governance from all parts of Mi'kmaq territory. At Council meetings, each individual has the opportunity to speak and their opinions were given respectful consideration in the decision-making process. Changes in the role of the Grand Council are the result of efforts of the British Crown and federal government to impose its system upon Mi'kmaq people (Dorey, 1994). Grand Council and the position of Grand Chief are non-political but they are still viewed with great respect in the Mi'kmaq community. Among the leaders of the Mi'kmaq governance system, the Elders, both men and women, are the most appreciated by others. Their opinions are held in the highest regard and the Mi'kmaq peoples accord them the utmost respect (Paul, 2006).

As previously mentioned, the Framework Agreement between the Mi'kmaq, the provincial government and the federal government, was a fundamental step toward making collaborative decisions (Government of Canada, 2007). The Mi'kmaq governing bodies use the Framework Agreement to work collaboratively with Nova Scotia and the federal government to define what it means to be a part of a tripartite relationship in Nova Scotia (Government of Nova Scotia, 2007). The Mi'kmaq Rights Initiative, otherwise known as the KMKNO, is one of the outcomes of the Framework Agreement. However, communities have begun to outwardly speak for their individual community by withdrawing from the Assembly and the Mi'kmaq Rights Initiative. As discussions progress around self-governance and a nation-to-nation relationship, the Mi'kmaq governance system may restore itself into its historic state.

## **Chapter 4: Reconciling collaborative governance in marine spaces**

### *4.1 Reconciliation*

Reconciliation is the restoration of two nations to find common ground and move forward on any difficulties that have been faced in the past (Government of Canada, 2018). Shared sovereignty is an important aspect of Canadian federalism. It permitted the early partnership between Indigenous and non-Indigenous people, and later it permitted the union of provinces that became Canada (Royal Commission of Aboriginal Peoples, 1996). The federal government's mandate claims to be committed to achieving reconciliation with indigenous people through a renewed, nation-to-nation relationship. This relationship is supposed to be based on the recognition of rights, cooperation, and respect (Government of Canada, 2018). Indigenous governments are one of three orders of government in Canada – federal/provincial, and Indigenous. The three orders are autonomous and therefore should share the sovereignty of Canada as a whole (Truth and Reconciliation Commission, 2015).

Indigenous peoples have a special constitutional relationship with the Crown. This relationship is recognized and affirmed in s.35 of the Constitution Act, 1982. Section 35 states that Indigenous nations and the crown are partners in confederation. However, these rights are not always upheld and are often taken to court as has been seen in the past (*Haida Nation v. British Columbia*, 2004). The Federal government needs to support Indigenous nations' transition to self-governance. Indigenous nations should have the economic abilities to create their own self-governing bodies alongside the Canadian government and respectively sustain their communities on their own. The Government of Canada and the Assembly of First Nations signed a memorandum in 2016, to achieve the goal of establishing a new fiscal relationship (Government of Canada, 2018). An improved fiscal relationship will have to be sufficient enough to address the socio-economic inequalities in First Nations communities and sustain the livelihoods of current and future generations.

All Indigenous nations have different needs, circumstances and objectives when exercising their inherent right to self-govern. The current federal government will need to be in support of these different approaches by Indigenous nations. This will function on a case-by-case basis. Therefore, establishing where communities stand on the initiative of a nation-to-nation relationship is necessary. The context and style of each nation's governance system is dependent on the choices made by the decision makers and the knowledge that is integrated and used within those systems (Emerson et al., 2012). Although there is a strong push for reconciliation of Indigenous nations, this shift will likely not be accomplished without the shift of how the current governance system uses and manages knowledge.

Recognition of indigenous water claims, values and knowledge embedded deep within treaty rights is an important commitment to be upheld by the federal government. The development of natural resources depends on effective governance structures and the processes that lie within institutions that manage them. These governance structures are interconnected and complex and they require integrated management across all sectors (Bark et al., 2012). Collaborative governance regimes are evolving as an approach for understanding natural resource governance by bringing to attention how social-ecological systems can adapt to change (Karpouzoglou et al., 2016).

#### *4.2 Integrating international UNDRIP into national legislation*

There is not one solution or unified approach toward decolonizing the legislation and building a nation-to-nation relationship. However, implementing the United Declaration on the Rights of Indigenous Peoples (UNDRIP) would be a step forward in this commitment. UNDRIP was adopted in the UN in 2007. In 2016, almost a decade later, the Government of Canada committed to adopting implementing the declaration within the laws of the Canadian Charter (Boutilier, 2017). Implementing UNDRIP into Canadian legislation requires changing all legislation to follow the declaration rights. Until those changes are made, UNDRIP will remain a passive international instrument that is used to address Indigenous rights. The TRC's recommendations make it clear that UNDRIP should be adopted by both federal and provincial governments as a "framework for reconciliation" (TRC, 2015).

UNDRIP includes a number of rights that are important moving forward in the reconciliation process. The concept of Free, prior and informed consent (FPIC) is a specific right that falls within UNDRIP pertaining to Indigenous peoples and development. It allows Indigenous peoples to give or withhold consent to a project that may affect them or their territory. However, the power to give or withhold consent does not mean it gives them veto power over a project. Instead, it gives rights to Indigenous communities to participate in decisions that may affect their lives, participate in consultations that do not pressure Indigenous people to agree (or settle), ensure a respectful amount of time is given to discuss concerns and that necessary information is provided that they are able to comprehend (Indigenous Bar Association, 2011).

The Free, prior and informed consent standard in UNDRIP is contained in six articles (10, 11, 19, 28, 29, 32). Under article 32, the state is obligated to obtain the “free prior and informed consent” prior to any project approval that may affect land, territory or other resources of the involved Indigenous nations (*UNDRIP*, 2007). Article 19 holds the state responsible for operating in good faith in Indigenous people through obtaining free, prior and informed consent before adopting or implementing any legislation or administration measures that may affect them (*UNDRIP*, 2007). Historically, the FPIC standard could have been very beneficial for Indigenous nations regarding development projects that may have marginalized or displaced communities. Strategies that implement the concept of free prior and informed consent in government and industry can safeguard traditional territory as it requires the informed consent of involved Indigenous nations to the traditional lands, territories and resources (Von Dor Porten and Loe, 2013).

The closest thing to FPIC in the Canadian constitutional law is the Duty to Consult and Accommodate. The duty to consult is triggered by the same measures as the FPIC standard; the measures affecting Indigenous peoples and their rights. In cases where Indigenous title has been established, Canadian law will authorize the need for consent. However, in other cases where title or rights are yet to be unproven, the level of obliged duty often falls along a spectrum (Boutilier, 2017). The FPIC standard allows Indigenous peoples to have the right to

self-governance in government decision making processes that concern their livelihoods and resources.

#### *4.3 Examples of collaborative governance in marine space*

Indigenous nations and federal governments have been able to work collaboratively to manage and govern marine spaces. For example, Indigenous peoples in Vanuatu have gained state recognition of customary marine tenure systems (von der Porten et al., 2016). This provides them the ability to control the marine activities in areas considered their traditional homeland. In Australia, Indigenous peoples were granted exclusive rights over the inter-tidal zone of Blue Mud Bay, Australia (von der Porten et al., 2016). As well, in New Zealand, the Maori have successfully achieved being a large part of the Nation's fisheries management. Through a Settlement Act, the Maori have their own commercial fishing quotas, have seats on statutory fisheries bodies, and have secured customary fishing rights (von der Porten et al., 2016).

Another unique example of co-governance is between the Haida Nation and the Government of Canada. The two nations created the Archipelago Management Board (AMB). The AMB oversees the marine and terrestrial areas of the Gwaii Haanas (Lloyd-smith, 2017). The AMB has its authority through the Gwaii Haanas Agreement between the Government of Canada and the Haida Nation in 1993 (Lloyd-smith, 2017). In Nunavut, co-management between Environment and Climate Change Canada and the Inuit was established through the Inuit Impact and Benefit Agreement. The agreement covers 5 National wildlife areas and 8 migratory bird sanctuaries. An area co-management committee has been created for each of the protected areas to ensure effective co-management (Lloyd-smith, 2017).

Canada can look to these examples to aid in improving their own Nation-to-Nation relations. By further developing formal legal changes in Canada to include UNDRIP, it drives the abilities for Aboriginal peoples to have a more central role in governance and management of marine resources, in comparison to a secondary standing as seen in the past (von der Porten et al., 2016).

# Chapter 5: Incorporating traditional knowledge systems into marine governance

## 5.1 Incorporating traditional knowledge into governance

Information is an essential component in the governance of marine spaces. This includes information sharing on resources that currently exist, the nature of the environment in which those resources exist and the users and uses of those resources (Sutherland & Nichols, 2006). Trusted knowledge in the Canadian government usually falls within western scientific paradigms (Chris Milley, personal communication, July 2017).

Traditional knowledge systems are interpreted as a cumulative body of knowledge, practices and representations. The concept of traditional knowledge evolved through adaptive processes and has been handed down through generations (Berkes et al, 2000). Western knowledge systems rely on laws that have been established through the application of the scientific method (Berkes et al, 2000). As shown in Table 1, western systems of knowledge focus more on scientific data to make decisions, they are expected to be more transparent, accessible and replicable while traditional knowledge systems focus on carrying knowledge through generations. Traditional knowledge focuses more on circular processes and tends to integrate social, environmental and economic issues together to determine a solution (Nursey-Bray and Jacobson, 2014).

Western Knowledge Systems	Traditional Knowledge Systems
Diachronic	Synchronic
Collects data over short term (and large areas)	Collects information over long-term
Quantitative	Qualitative
Improved hypotheses	Improved tests of mechanisms



Objective	Subjective
-----------	------------

Table 1: Differences between knowledge systems

Integrating the two knowledge systems could create a better inflow of collaborative management decisions (Bohensky and Maru, 2011). The two knowledge systems are unique, with many similarities and differences. The ability to utilize each knowledge system is determined by the way that managers or decision-makers view them. Traditional knowledge is an asset that should not be underestimated, especially where there are knowledge gaps in western knowledge systems (Sutherland & Nichols, 2006). Ultimately, it can provide understanding of the interconnection within ecosystems, or validation to scientific theories (Thornton and Scheer 2012). The integration of knowledge systems needs to be legitimate; it should not be something that is considered a “box-ticking” exercise. As a nation-to-nation approach is initiated by the Canadian government, traditional knowledge can play an important role in governance, both in terrestrial and marine settings (Krupa et al., 2015).

Research has shown that collaborative governance can enable integrated knowledge and build social and ecological resilience (Williams & Hardison, 2013 & Karpouzoglou et al., 2016). Traditional knowledge systems can be adaptive to social-ecological systems in the marine environment (Williams & Hardison, 2013). Indigenous nations focus their management efforts on the value of the environment as a resource, rather than a commodity. Marine environments are complex systems. Complex ecosystems in marine spaces can benefit from integrated knowledge systems. Although they both have gaps and shortcomings, using both western and traditional knowledge can help understand the changes that may come with a new development in a marine space. It is because of this that both western and traditional knowledge perspectives be integrated into decision-making. An integration of knowledge may lead to good governance of coastal and marine resources (Nurse-Bray and Jacobsen, 2014). Moreover, using an integrated approach may help shed light on some of the gaps and shortcomings in the current research.

## 5.2 Incorporating traditional knowledge into marine governance

New technology and changing environments continuously leave management bodies with knowledge gaps in their research and many issues to be understood (Thornton and Scheer, 2012). The value of traditional knowledge is not always appreciated and is often ignored because it is not standardized or considered objective (Sutherland & Nichols, 2006). Decisions in marine spaces regarding development are often based on western knowledge systems and scientific evidence (Ellis, 2005).

The Mackenzie Valley Resource Management Act (MVRMA) was created to foster inclusion of traditional knowledge in the regulation of land and water use in the Northwest Territories (Ellis, 2005). This regulatory process provided mechanisms for Indigenous peoples in two ways. Indigenous groups that may have been affected by a proposed development were able to make recommendations in a pre-screening process. Secondly, Indigenous representatives are able to review a proposed development project using traditional knowledge. Concerns stemming from traditional knowledge in this process were considered equally with those based on science (Ellis, 2005).

Unfortunately, legislation requirements for some provinces provide little guidance when implementing traditional knowledge which can lead to developers interpreting the use of traditional knowledge as they see fit (Ellis, 2005). Indigenous peoples might advocate for governance structures that include indigenous participation and traditional knowledge, but once again this leaves indigenous people to become empowered upon terms set by federal government (Galbraith, 2014). The intention by the federal government department may allude to co-management in marine spaces. However, top-down approaches are still applied and may be ineffective at achieving the overall objective of creating collaborative relationships with indigenous nations. A number of debates have been addressed in western society on the use of traditional knowledge in marine spaces (Table 2). Several of these arguments are presented and reflected below.

Argument	Discussion
Traditional knowledge contributes invaluable information for natural resource management because it does not convey any scientific data or	Although it is not written within legislation or documented on paper in scientific data, traditional knowledge is still useful information for natural

<p>evidence.</p>	<p>resource management. The problem is that it is not a current tool in resource management. For example, research has proven that there were clear indications from traditional knowledge holders that the cod fishery was not to be as heavily fished or it may have detrimental consequences (Sutherland &amp; Nichols, 2006 and Finlayson &amp; McCay, 1998). If more emphasis was placed on traditional knowledge at the time, the outcomes may have been different.</p>
<p>Cultural differences between Western and Traditional knowledge can make it difficult to have shared objectives and motivations for the management of a marine space.</p>	<p>Western science sees ocean space in terms of zones by studying them and devoting specific areas to resource extraction activities. However, traditional knowledge visualizes the ocean as a whole, where every individual is dependent on it for not only resources but as a part of their spiritual and cultural identity (Von der porten et al., 2016). Language barriers, values or different interpretations of practices can present obstacles in the management of marine spaces (Armitage et al., 2011). In decision-making processes, managers need to have shared objectives. Not having shared objectives can leave more room for issues to arise in decision-making processes. In return, this can cause conflict for the overall objective the manager is trying to achieve.</p>
<p>The use of traditional knowledge has a tendency to become tokenistic in both government and industry.</p>	<p>There is a need and place for traditional knowledge systems in collaborative environmental decision-making, but a persistent lack of meaningful implementation (Von Der Porten, 2016). External use of traditional knowledge can become a risk to knowledge holders as it may lead Indigenous nations to surrender the control of the management of their traditional lands to other authoritative bodies, such as the crown or developers (Von Der Porten, 2016).</p>
<p>There is a lack of appropriate information for traditional knowledge practices in coastal areas, due to a lack of historical databases that are</p>	<p>Traditional and western knowledge systems function very differently. Indigenous nations rely on oral communication to pass down generations of</p>

either out of date or have large knowledge gaps.	knowledge rather than relying on written documentation (Berneshawi, 1997). Traditional knowledge systems are not well documented. This is simply due to the nature of how Indigenous nations practice culture and tradition. Therefore, the lack of written documents does not make traditional knowledge systems invalid.
--	--

Table 2: Arguments against the use of traditional knowledge systems in western society.

## **Chapter 6: Mi’kmaq engagement as a mechanism to make collaborative management decisions in tidal energy development in the Bay of Fundy**

### *6.1 Context*

The in-stream tidal energy project being tested in the Bay of Fundy is located in the Minas Passage. In-stream tidal technology makes use of kinetic energy to produce electricity. The Fundy Ocean Research Centre for Energy (FORCE) is host to five berth holders in the Crown leased area (CLA). The five berth holders are Atlantis Operations Canada Ltd., Cape Sharp Tidal, Black Rock Tidal Power, Minas Tidal and Halagonia Tidal Energy Ltd (FORCE, n.d.). Each developer is expected to follow specific test requirements and guidelines. The only developer that has successfully deployed in-stream technology into the water is Cape Sharp Tidal. As previously mentioned, Cape Sharp Tidal is a joint venture between Open Hydro and Emera Inc. As of 2018, the status of in-stream tidal energy is still being tested in the R&D phase of development (FORCE, n.d.).

An issue of concern with the current development of the tidal energy project is on the environmental impact it may cause. New technologies pose uncertainties and this may have the potential to have negative impacts on the livelihoods of fishermen and First Nations (Carys Burgess, personal communication, July 19, 2017). Each berth holder is testing a different type of in-stream tidal energy technology in the CLA. Therefore, the environmental impact will differ amongst the developers. Due to the uncertainty of the technology and the development, a strategic environmental assessment was conducted by the Ocean Energy Research Association

(OERA) in 2008. As part of the EA process, a Mi'kmaq Ecological Knowledge Study (MEKS) was conducted in 2009 (FORCE, n.d.). The MEKS noted that tides were important transportation routes and Mi'kmaq lived on the shores of the Bay during the winter to keep warm while travelling inland to live off of watersheds during the summer (OERA, 2009). Furthermore, Tidal energy development near the shoreline of the Minas Basin may pose an issue due to the fact that it is located near archeological significant sites that are closely connected to the culture of Mi'kmaq nations through the Legend of Glooskap (OERA, 2009). Therefore, the Bay of Fundy is culturally and historically significant to Mi'kmaq Nations.

Other than information sharing through the Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO). There has been little engagement with the Mi'kmaq communities by both FORCE and the developers (Carys Burgess, personal communication, June 9, 2017). The FORCE fisheries committee involves First Nation members and individuals from the MCG. However, as the level of development increases, there is a necessity to increase the engagement with Mi'kmaq Nations to address other concerns and interests that may not be within the scope of the fisheries committee.

## *6.2 Importance and purpose of meaningful engagement*

Industries involved in natural resource development create a large opportunity for economic development in both federal and provincial jurisdictions. As a result of this, whether it is beneficial to external factors or not, they embody strong economic power to guide decision making processes in government (Trigger et al., 2014). However, not all industries possess this power and those with strong social and environmental connections to their projects are recognizing the importance of involving external factors in the development of a project. Symbiotic relationships between industry and Indigenous nations can influence positive and sustainable development (Mulrennan and Scott 2000). Implementing an Indigenous engagement process into business strategies is an evolving part of project development.

Historically, many industries involved in natural resource exploitation have displaced or marginalized Indigenous communities and dismissed their rights in decision-making processes (Von Der Porten and De Loë 2013). Many Indigenous communities are therefore cautious to

accept development projects that have the potential to damage the marine environment and obstruct traditional uses of the marine space (Wright, 2015). However, developing trust and relationships prior to development can help both parties mitigate the issues and collaborate to and create sustainable development.

The purpose of meaningful engagement is to establish or develop relationships with Indigenous nations that can create better opportunities for collaboration or partnerships in later phases of development. Involvement of Indigenous communities in resource development should go beyond consultation measures. Instead, proponents should focus their efforts on meaningful engagement with Indigenous groups, such as the Mi'kmaq nations. Meaningful engagement is important because the Mi'kmaq nations have a different level of understanding and knowledge than western scientists may have. Mi'kmaq nations have generations of knowledge that can be applied to different aspects of tidal energy development and fill some of the knowledge gaps or uncertainties. Moreover, Mi'kmaq peoples have different skills and abilities that can be used to support research and development.

Many of the issues in tidal energy in Nova Scotia stem from a poor social license, both by non-indigenous and indigenous communities. Without proper and meaningful engagement, the likelihood of gaining a social license in marine renewable energy development can be very difficult. It's potential to cause economic or environmental disadvantages creates a lot of tension between the industry and traditional users of the proposed areas. The deployment of a technology in a heavily used environment can be very controversial to those that rely on it for their livelihood.

### *6.3 Legal reasons*

Ethical justifications for institutions to engage with indigenous nations and their influence on the management of development projects can often be silenced or pushed aside (Posey and Plenderleith, 2004). However, in a new industry such as tidal energy, abiding by treaties and s.35 of the Constitution Act in order to avoid any infringement on Indigenous rights and territory is important to the contribution and development of formal (and informal) relationships with First Nations groups. A province that has deeply rooted ties with First Nations

requires meaningful engagement to be more than just the “right thing to do”. It is unethical to sacrifice the viability of indigenous culture for resource development projects (Lertzman and Vredenburg, 2005). However, it can be seen as an ethical practice to engage with indigenous as long as the objectives by both parties are agreed upon.

As part of a historical relationship, any time that the Canadian government is interacting with Indigenous peoples, the honor of the crown is at stake (Government of Canada, 2011). To honor that principle is to honor the duty on the Crown to consult with Indigenous nations in any industry activities. The duty is engaged with the province has knowledge of the existing or potential Indigenous right or title that may adversely affect them (Government of Canada, 2011). Consultation matters may cover ethical decisions in approving projects, but there are additional actions that industry should be responsible for in regard to ethical decision-making and indigenous nations. Three ethical decision criteria are presented in Figure 1. The ethical criteria should be considered by proponents where decisions in development may trigger negative outcomes to avoid conflict and sustain good relationships with the involved First Nations.

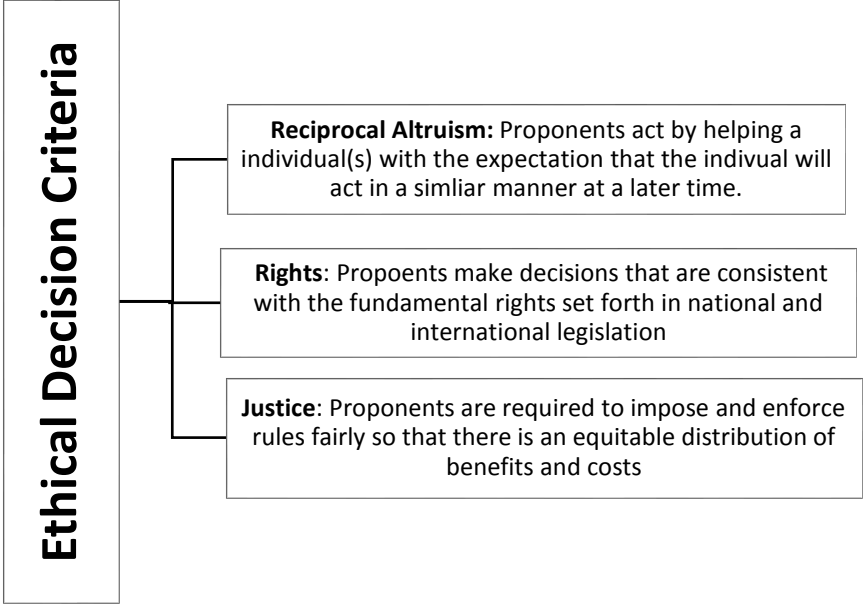


Figure 1: Ethical Decision Criteria for proponents involved in decision-making with Indigenous Nations (Litschka et al., 2011, Plummer and Fennell, 2007., & O'Neil and Pienta, 1994).

Proponents can use these criteria as a starting point when involving Indigenous Nations in resource development projects. There is a lack of ethical criteria for proponents to practice after federal duties to consult are completed. Perhaps what is needed is a reordering of business' priorities and values in a form of eco-ethnic ethics. Instead of focusing strictly on revenue, there should be a larger focus on the social value that collaborative relationships can establish for the corporation in the long run. Involving indigenous nation's development projects in meaningful ways may require involving UNDRIP and better sustainable development practices.

The concept of sustainable development requires that economic equity and social values be equal to the environmental equation (Lertzman & Vrendenburg, 2005). This presents a "moral minimum" for businesses to pursue development, especially for projects on territorial land or within archeological sites (DesJardins, 1998). Therefore, proponents can be free to pursue profits only if natural and social ecosystems are left no worse off in the process.

#### *The duty to consult by government, and the "duty to engage" by industry*

As written in the Mi'kmaq Renewable Energy Strategy, some of the Mi'kmaq First Nation groups have expressed interest in collaborating on the development of the renewable energy sector in Nova Scotia (Mi'kmaq Rights Initiative, n.d.). Although most of their interest lies in wind and solar, they have notified the Provincial government that they intend to be consulted on energy development through the Mi'kmaq-Nova Scotia-Canada Consultation Terms of Reference (Nova Scotia Department of Energy, 2012). The Terms of references were created after the signing of the umbrella agreement between Canada, Mi'kmaq Nations and the Province of Nova Scotia (INAC, 2002). The objectives of negotiations were to create stable and respectful relationships and to reconcile the respective rights and interests of the parties. If need be, the Mi'kmaq of Nova Scotia may exercise constitutionally protected rights respecting land, resources and governance to the extent that issues are dealt with (Ken Paul, personal communication, August 30, 2017).

Since the Duty to Consult rests with the Crown, there is less obligation for proponents to participate in consultation measures. However, they are able to participate to some measure if



the First Nations wish to speak with them or learn more about the development project. The capacity for government to deal with consultation can be low and often overlooked. It is encouraged by the province that the proponent engages with the First Nations during early stages of development, but unlike consultation, engagement is not legally binding. If proponents do not meaningfully engage with the Mi'kmaq of Nova Scotia, issues that infringe upon their rights under s.35 of the *Constitution act*, (1982) may arise and could potentially delay development processes. An obligation for industry to establish working relationships with Mi'kmaq nations from the beginning of a project may create more opportunity for meaningful engagement throughout the project.

#### *6.4 Implementing Free, prior and informed consent (FPIC)*

Integrating Free, Prior and Informed Consent into Canadian legislation regarding development projects has been widely discussed in the public media and literature, both nationally and internationally. FPIC generally falls into two different categories. One being consultation and the other being consent. Consultation can be seen as a one-way distribution of information that should be capable of influencing decision making in regard to the development of the project, while consent involves the sharing or transfer of authority. The concept of consent can be leveraged to avoid projects that pose more risks than benefits (Szablowski, 2010). More importantly, it can be used to facilitate collaborative decision making between government, industry and first nations.

The use of UNDRIP in practice is often misinterpreted in many different countries (Boutilier, 2017). Often the “right to consent” has been concerned by government and industry as a form of veto power over projects or policies (Chris Milley, personal communication, July 2017). Neither federal nor the provincial governments exercise absolute power or unilaterally make decisions about unceded Indigenous land (Szablowski, 2010). However, the intent of FPIC is not to be used as a type of “veto power”. Ultimately, the use of FPIC replaces the unilateral approach to decision making with a more inclusive process that begins and ends with consent. Moving forward in business practices to implement FPIC respects the concept of a nation-to-nation relationship and industry has a core role in that relationship. A number of countries have

national legislation that addresses aspects of FPIC for activities that affect the lands and territories of indigenous peoples, such as Malaysia, Australia and Peru (BSR, 2012). In addition, some Australian states enforce legislation that permits indigenous people to be recognized, consulted and negotiated with in respect to mining exploration (BSR, 2012). Although there are likely shortcomings in the legislation, its existence is noteworthy. In addition, businesses involved with natural resource development will be required to implement the concept, especially in Canada as the discussion around the implementation of UNDRIP progresses.

## **Chapter 7: Encouraging sustainable development practices in tidal energy development: A framework for strategic engagement**

### *7.1 A framework for strategic engagement practices*

A framework for engagement with Mi'kmaq nations in marine renewable energy is necessary as it may help sustain development while maintaining the environment's characteristics. The four pillars in detail below represent the framework illustrated in Figure 2 that can be used to build collaborative relationships with Mi'kmaq nations. Each pillar is a component of the engagement process and the components are meant to be practiced in sequence. The consequence of avoiding a pillar or not moving in sequence can pose obstacles for proper and meaningful engagement with Mi'kmaq nations. For example, if a proponent developing tidal energy in the Bay of Fundy is not well informed of all of the uses in the area, a number of risks could arise in future stages of development that could have a detrimental effect on the success of the project, the environment and surrounding communities.

Without proper communication between the Mi'kmaq nations and the proponents, these risks are increased. Therefore, a reciprocal relationship is required in order for successful and meaningful engagement to take place, meaning that both parties have to be committed to making collaborative decisions. Furthermore, it should be noted that this framework was created specifically for marine renewable energy proponents in tidal energy, although it can be tailored to other resource development projects on a proponent to First Nation case scenario. Moreover, implementing strategic practices like this in businesses can foster the implementation of nation-to-nation relationships in provincial and federal governments.

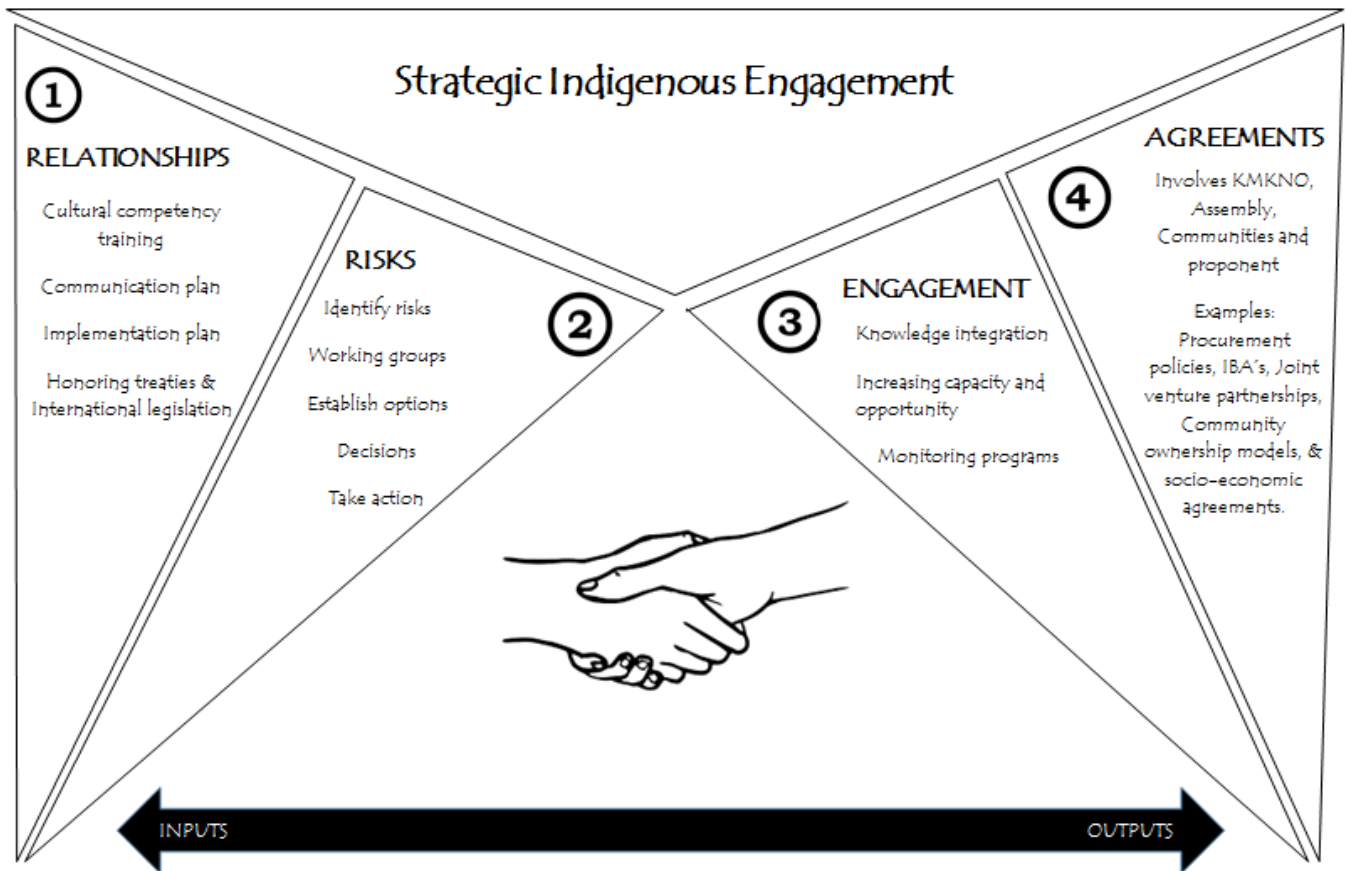


Figure 2: A framework for proponent success in engaging with Indigenous nations in Marine renewable energy and resource development projects

### 7.1.2 - 1<sup>st</sup> Pillar: Building relationships

#### *Cultural competency training*

Abiding by the TRC's Calls to Action regarding education and improving on indigenous awareness is an essential part of meaningful engagement (TRC, 2015). Indigenous awareness and training should recognize cultural diversity. Internal cultural competency training within a project will enhance the team's ability to understand, communicate with and effectively interact with individuals across cultures. Furthermore, gaining knowledge of the cross-cultural skills, beliefs and knowledge of Mi'kmaq practices will be better understood. Due to the diversity of Mi'kmaq communities, education and training will be project and case specific. Therefore, proponents should be responsible for doing their research on a project basis.

#### *Communication plan*

Proceeding cultural competency training, a communication plan must be created before any further engagement process is implemented. Table 3 presents some of the approaches necessary for creating a reliable communication plan. A communication plan should include both internal and external communication. How a proponent communicates both internally and externally within the Assembly and with the communities involved will determine the success of the project. More importantly, if an issue were to arise in the process of planning and implementation, proponents can return to their communication plan and address the steps necessary to resolve and reconcile the relationship.

Internal	External
Address how to communicate within the team on Indigenous relations	Establish how involved communities want to be reached (via face to face, email or other forms of communication)
Appoint someone to Indigenous communication relations	Establish a working group
Attend conferences, seminars and other forums to increase education on current Indigenous subjects	Understanding what language barriers exist and where
Consider executive support	What deliverables do they require? What concerns do they have?

Table 3: Internal and External components of a communication plan

*Implementation plan*

Understanding the projects “Plans of Action” through every phase is not only important from a business point of view, it is an essential part of keeping Mi’kmaq communities informed and involved. Implementation plans break strategies and projects into identifiable steps. It gives responsibility to managers to make the step by step process available to First Nations communities. The plan should establish the objectives, goals and outcomes of the tidal energy development, as well as who is responsible for what task and what deliverables are to be considered. The implementation should provide a framework for evaluation and performance during the timeline of the project. Preparing implementation plans can be a process that is sometimes difficult and overlooked. However, they are valuable when working alongside

Mi'kmaq communities, especially for Mi'kmaq communities that wish to be involved or would like to stay updated on the progress of the project.

Many companies are developing an online shared document drive that gives the team access to past and ongoing research, calendars, implementation plans, strategic documents, etc. (Carys Burgess, personal communication, September 11, 2017). This tool can be shared with the Mi'kmaq nations to give them access to current research on the project. It can also be increasingly beneficial in keeping individuals accountable and responsible for their own role and can increase the efficiency of the project. The accessibility of an online shared drive can give access to Mi'kmaq nations and allow them to voice their concerns throughout the implementation phases of the project.

### *7.1.3 - 2<sup>nd</sup> Pillar: Analyzing the risks Identifying, describing and mitigating risks*

Mitigating risks is an important component of creating meaningful relationships with the Mi'kmaq nations. If a project's risks are not identified and mitigated, then the project is more susceptible to fail. Due to the nature of political and social changes in Indigenous communities, potential risks seem to be inevitable.

Controlling and ultimately conquering these issues requires proponents to reach beyond standard business practices and find the solutions that address these problems. Standard risk analysis allows proponents to assess potential risks internally (Isaacman et al., 2012). However, there is a great opportunity to engage beyond chief and council in identifying, describing and mitigating these risks by involving Mi'kmaq community members within working groups and research studies. This allows the Mi'kmaq people to actively be a part of the development process that may involve the traditional use of their land and resources.

#### *Working groups*

Working groups involve bringing together people with expertise and/or common interest regarding tidal energy development or specific issues within the project such as environmental effects of technology, data gaps in knowledge and communication. Once

working groups are established, individuals discuss collaboratively what their objectives are, how often they should meet on specific topics, and determine managing techniques that can help to mitigate any conflict in the marine space for all users.

#### *7.1.4 - 3<sup>rd</sup> Pillar: Engagement Knowledge integration/sharing*

The importance of involving traditional knowledge in project development has been previously discussed. However, it is an important aspect of the framework and its usefulness should not be undermined. Much like governance, the role of industry in integrating knowledge systems to make engagement processes stronger is similar. Given their longstanding knowledge and use of ecosystems in the Bay of Fundy, Mi'kmaq Nations play an important role in the sustainable development of natural resources. Indigenous traditional management systems can be seen as an asset toward achieving sustainability both economically and environmentally. If institutions declare sustainable development as a goal, advancing relations with Mi'kmaq Nations is a necessary element in making progress toward that goal.

#### *Environmental monitoring and evaluation*

The credibility of resource development projects will depend on the inclusiveness of the monitoring, reporting and evaluating stages. Mi'kmaq communities have a close connection with the living world and they have centuries of experience fishing, hunting and living on the shoreline of the Bay of Fundy. The current migratory route for many fish flows upstream to the Minas Passage, their input in the environmental monitoring and evaluation process is a useful resource for tidal energy developers in the Bay of Fundy.

Sometimes development issues are based on overcoming regulatory barriers, in these cases, companies and local Mi'kmaq Nation communities can work together to develop and draft applications that have support of all involved parties, including government, industry and Mi'kmaq Nations. If these applications are successful, sometimes they can enhance the environmental assessment process and incorporate specific First Nation principles in provincial

regulatory processes often pertaining to ecosystem management or traditional ecological knowledge (Working group on Natural Resource Development, 2015).

Proponents have the opportunity to involve First Nations in the environmental monitoring and evaluation by implementing programs that give them the ability to apply traditional ecological knowledge and integrate western scientific models to better manage and understand the influence of the technology and the development taking place. In addition to that, the monitoring program can then be evaluated by administering quarterly reports to First Nations communities, the assembly, KMKNO and other First Nation organizations or conservation groups.

The Mi'kmaq Conservation Group (MCG) is a research and conservation group that develops programs and offers services to other organizations, industry and government. The MCG volunteered to be a representative on the Environmental Monitoring Advisory Committee (EMAC). The representatives of EMAC provide their independent expert scientific and traditional ecological knowledge advice to FORCE and the berth holders (Mi'kmaq Conservation Group, 2016). The MCG attends bi-annual meetings with the rest of the EMAC. MCG raised concerns for the need to monitor lobster in the Bay of Fundy. The MCG raises their concerns and gives their feedback to the EMAC so that the monitoring and evaluation team can mitigate environmental harm and conflict.

#### *7.1.5 - 4th Pillar: Agreements*

Agreements in tidal energy development in Nova Scotia will involve the Assembly of First Nations, KMKNO, the involved communities and the proponents of the development project. The level of engagement with these parties, the phase of the development and the nature of the agreements being proposed will determine the support of such agreements. An agreement may not necessarily mean that they agree with the project, such as a procurement policy. However, some agreements will suggest that they not only agree but wish to create partnerships, such as joint ventures or community ownership models. It is beyond the scope of this research to explain the variety of negotiated agreements that can take place between

parties in resource development projects, for example; impact benefit agreements and socio-economic agreements.

### *Partnerships*

A partnership is the state of two people, organizations, or nations working together collaboratively as partners. Partnerships require collaborative bi-cultural decision making processes and management strategies to facilitate the shared goals of sustainable development by all parties in the tripartite relationship. First Nations are often targeted markets for partnerships in resource management (Fidler, 2010). Meaningful engagement with Mi'kmaq Nations can provide proponents with strong partnerships for managing and progress the sustainable development of tidal energy. There are many examples of partnerships between industry and Indigenous Nations across Canada in many sectors. To give an example, the Hupacasath First Nation in BC partnered with Synex Energy to establish a micro-hydro operation with the China Creek Micro-Hydro Power Plant. This partnership allowed the First Nation to develop and build capacity for future opportunities. There have been some structural and operational setbacks since the micro-hydro plant was established. However, the Hupacasath First Nation its partners are working on finding solutions for the technical issues and environmental concerns of the project (Government of Canada, 2010). Although this is only one example, there are other existing partnerships between Indigenous nations and industry in Canada. In addition, as the conversation on implementing UNDRIP evolves, developing meaningful partnerships will be an important component of the implementation process.

### *Increasing opportunity and capacity for Mi'kmaq individuals*

Increasing the opportunity and capacity for Mi'kmaq individuals to be involved in development projects is a beneficial way to build strong relationships between the renewable energy sector and Mi'kmaq communities. For example, an organization named Unlooweg has launched an online database of Indigenous companies to promote their products and services to industry, government and other organizations (Paul Langdon, personal communication, July 24, 2017). Indigenous businesses can increase their procurement opportunities by being within



an industry based database that is specific to indigenous businesses. This opportunity accounts for any relevant indigenous business, whether it is in the supply chain, skills and training or education. Another organization in Nova Scotia, Common Goods Solutions, promotes programs and courses directed toward youth entrepreneurship (Common Goods Solutions, n.d.). Proponents can help fund Mi'kmaq youth in these programs so that more youth are able to acquire the transferable skills and work in areas within tidal energy development in Nova Scotia. Meanwhile, this can also help to close the demographic gap in Nova Scotia by keeping younger generations in the province while simultaneously providing them with economic stability (Nova Scotia Commission on Building our New Economy, 2014).

Some corporations have organized their own scholarship funding program that allows for individuals within indigenous nations to apply for any discipline (Ted Garcia, personal communication, August 9, 2017). There are plenty of opportunities for proponents to engage with the Mi'kmaq communities in Nova Scotia regarding the development of tidal energy that not only can provide those individuals with educational or financial benefits, but can also increase their capacity in industry, business, research and management.

### *7.2 Lessons learned based on project success of the Tahltan Nation in British Columbia*

Leidloff et al (2013) argue that there is an underrepresentation of indigenous values in water planning and policy that may be able to better inform water management decisions. As Indigenous nations have distinct and diverse interests in water, proponents can benefit by collaborating with them to acquire baseline information and address data gaps. In addition to that, proponents can collaboratively make informed management decisions on the use of marine spaces to mitigate environmental consequences. The inclusion of Indigenous Nations can have a positive outcome on development projects if they are involved in the project early, consistently and in decision-making processes. Many institutions have changed development projects based on indigenous input.

For example, the Tahltan Nation in Galore Creek, British Columbia has implemented several key initiatives in their territory that created positive and effective bi-lateral relationships between industry and the Indigenous group (Fidler, 2010). The Nation leveraged their wealth

from previous mineral development to create Tahltan standards for sustainable development in a policy document that advocated for industry to adhere to; The Tahltan Resource Development Policy (1987). In addition, they created the Tahltan Heritage Resource Environmental Assessment Team to oversee and provide direction to both industry and government on their culture and heritage (Fidler, 2010). The EIA and Negotiated Agreements between the two parties created an iterative consultation and engagement process followed by working groups. This increased the amount of Tahltan participation for partnership planning (Fidler, 2010). In addition, it allowed the Tahltan Nation to be more involved in the process of project and ensure it was sustainable and favorable to their principles.

## Chapter 8: Concluding thoughts

Good governance begins with an understanding of values and visions that people care about and wish to pursue. Moreover, it is a multi-level matter in which decisions can be made locally, provincially and nationally. Unfortunately, with the way that history has played out in Canada, Indigenous people have been forced to assert their rights for their traditional land and title. As Indigenous nations learn how to assert their rights, they continue to grow stronger as self-governing nations. An evolved tripartite relationship between federal and provincial government and indigenous nations can help to address these concerns. Despite the ongoing discussion in the public media, the federal government is taking a much slower time at negotiating a nation-to-nation relationship. Therefore, it is evident that it will require more attention by other institutions to reconcile the nation-to-nation relationship with Indigenous nations.

An example used in this research was the significance of industry's role in resource development, with a specific focus on tidal energy in the Bay of Fundy. Conventional decision-making and the top-down 'silo' approach to management have been inadequate in addressing the cumulative environmental impacts of human activities in the ocean (Charles, 2012). Effort from both government and industry toward integrating knowledge systems, implementing UNDRIP into Canadian legislation and creating a new royal proclamation for reconciliation should be considered in order to address these issues. Moreover, the tidal energy industry has the opportunity to step in and involve Mi'kmaq Nations in a meaningful way in sustainable resource development.

An emerging industry such as tidal energy gives the proponents involved the ability to set the tone for other stakeholders in the marine space and lead by example. Concepts such as the social license to operate (SLO), corporate social responsibility (CSR) and corporate citizenship can often be seen as forms of tokenism and "quick fixes" to businesses involved in indigenous relations (Ruwhiu & Carter, 2016). Ultimately, Industries that are open and willing to voluntarily engage with Indigenous nations in a meaningful way will influence the government to work towards upholding their rights to self-government and implementing UNDRIP into

Canadian legislation. There are obvious limitations to the research presented here, as the notion of collaborating governance systems become much more complex when put into practice. In addition to that, the scope is limited to marine environments within the context of Canadian legislation and focuses on a specific industry and First Nation group in Nova Scotia. Research regarding other First Nations groups in different geographic regions and environments in Canada would enhance the discussion concerning reconciliation of Indigenous Governance. Where gaps were identified, recommendations are presented that may have potential to alleviate the shortcomings by government and industry in the evolvement of a tripartite relationship. To conclude, Mi'kmaq engagement can and should be used as a mechanism to integrate knowledge systems and ultimately reconcile indigenous governance in the Bay of Fundy.

## **Recommendations**

### *Federal and Provincial Government*

- Reconcile Indigenous governance and knowledge systems in marine spaces to make better management decisions
- Establish what a tripartite relationship between Federal, provincial and Indigenous nations governments will resemble, both from a First Nations and federal government perspective
- Implement UNDRIP into necessary legislative material to make it legally binding

### *Industry*

- Develop meaningful relationships with Mi'kmaq nations concerning any project, as well as those with involved interests
- Require MEKS prior to development and during major development phases in order to acquire baseline information and address knowledge gaps
- Adopt UNDRIP articles concerning FPIC into business strategies
- Implement strategic engagement pillars in project development
- Create meaningful partnerships to ensure long-term sustainability

## Bibliography

- Aboriginal Consultation and Accommodation: Updated Guidelines for Federal Officials to Fulfill the Duty to Consult. Government of Canada. March 2011. Retrieved from: <http://www.aadnc-aandc.gc.ca/eng/1100100014664/1100100014675>
- AFN. 2015. Description of the AFN – Assembly of First Nations. Retrieved from <http://www.afn.ca/description-of-the-afn/>
- Armitage, Berkes, Dale, Kocho-Schellenberg, & Patton. (2011). Co-management and the co-production of knowledge: Learning to adapt in Canada's Arctic. *Global Environmental Change*, 21(3), 995-1004.
- Atlantic Policy of Congress of First Nations Chief Secretariat. (2012). More than Wind: Evaluating Renewable Energy Opportunities for First Nations in the Atlantic Region. Retrieved from: <http://www.apcfn.ca/images/uploads/SummaryGuide-MoreThanWind.pdf>
- Bark, Garrick, Robinson, & Jackson. (2012). Adaptive basin governance and the prospects for meeting Indigenous water claims. *Environmental Science and Policy*, 19(20), 169-177.
- Berneshawi, S. (1997). Resource management and the Mi'kmaq nation. *The Canadian Journal of Native Studies*, 17(1), 115-148.
- Berkes, F., Colding, J., & Folke, C. (2000). Rediscovery of traditional ecological knowledge as adaptive management. *Ecological applications*, 10(5), 1251-1262.
- Bill No. 110: Marine Renewable-energy Act*. (2015). Third reading December 11, 2015, 62nd General Assembly, 2nd session. Retrieved from: [http://nslegislature.ca/legc/bills/62nd\\_2nd/1st\\_read/b110.htm](http://nslegislature.ca/legc/bills/62nd_2nd/1st_read/b110.htm)
- Bohensky, E., & Maru, Y. (2011). Indigenous Knowledge, Science, and Resilience: What Have We Learned from a Decade of International Literature on "Integration"? *Ecology and Society*, 16(4), 1.
- Boutilier, S. (2017). Free, Prior, and Informed Consent and Reconciliation in Canada: Proposals to Implement Articles 19 and 32 of the UN Declaration on the Rights of Indigenous Peoples. *Western Journal of Legal Studies*, 7(4), 1-21.
- Business for Social Responsibility (BSR) (2012). Engaging With Free, Prior, and Informed Consent. Retrieved from [https://www.bsr.org/reports/BSR\\_Engaging\\_With\\_FPIC.pdf](https://www.bsr.org/reports/BSR_Engaging_With_FPIC.pdf)

- Charles, A. (2012). People, oceans and scale: Governance, livelihoods and climate change adaptation in marine social–ecological systems. *Current Opinion in Environmental Sustainability*, 4(3), 351-357.
- Christie, P. (2011). Creating space for interdisciplinary marine and coastal research: Five dilemmas and suggested resolutions. *Environmental Conservation*, 38(2), 172-186.
- Crawley, & Sinclair. (2003). Indigenous Human Resource Practices in Australian Mining Companies: Towards an Ethical Model. *Journal of Business Ethics*, 45(4), 361-373.
- Common Goods Solutions. (n.d.). *What we do*. Retrieved from: <http://commongoodsolutions.ca/what-we-do/>
- Canadian Charter of Rights and Freedoms*, Part I of the *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982 (UK)*, 1982, c 11
- DesJardins, J. (1998). Corporate Environmental Responsibility. *Journal of Business Ethics*, 17(8), 825-838.
- Denny, S., & Fanning, L. (2016). A Mi'kmaw Perspective on Advancing Salmon Governance in Nova Scotia, Canada: Setting the Stage for Collaborative Co-Existence. *International Indigenous Policy Journal*, 7(3), 1-25
- Devine-Wright, P. (2011). Enhancing local distinctiveness fosters public acceptance of tidal energy: A UK case study. *Energy Policy*, 39(1), 83-93.
- DFO. 2007. Strategic Plan: Eastern Scotian Shelf Integrated Ocean Management Plan. Retrieved from <http://www.dfo-mpo.gc.ca/Library/333115.pdf>
- DFO. (January 2018). A Fisheries Act for the future. Retrieved from <http://www.dfo-mpo.gc.ca/campaign-campagne/fisheries-act-loi-sur-les-peches/index-eng.html>
- Dorey, D.A. (1994). Aboriginal Self Government for the Mi'kmaq People of Nova Scotia: Essential Features of a Workable Model. Truro, NS: Native Council of Nova Scotia, Language Program
- Ellis, S. (2005). Meaningful Consideration? A Review of Traditional Knowledge in Environmental Decision Making. *Arctic*, 58(1), 66-77.
- Emerson, K., Nabatchi, T., & Balogh, S. (2012). An Integrative Framework for Collaborative Governance. *Journal of Public Administration Research and Theory*, 22(1), 1-29.

Environment of Canada (2017). Environmental Goals and Sustainable Prosperity Act 2015–17 Progress Report. Retrieved from <http://novascotia.ca/nse/egspa/docs/EGSPA-2015-17-Progress-Report.pdf>

Environmental Goals and Sustainable Prosperity Act, 2007, c. 7.

Fidler, C. (2010). Increasing the sustainability of a resource development: Aboriginal engagement and negotiated agreements. *Environment, Development and Sustainability*, 12(2), 233-244.

*First Nations Elections Act*, S.C. 2014, c. 5

Finlayson & McCay (1998), Crossing the Threshold of Ecosystem Resilience: The Commercial Extinction of Northern Cod. *Linking Social and Ecological Systems: Management Practices and Social Mechanisms for Building Resilience*. 311-337. Cambridge University Press.

Fundy Ocean Research Center for Energy. (n.d.). *Environmental Assessment*. Retrieved from: <http://fundyforce.ca/environment/enviromental-assesment/>

Fournier, R. O. (2011). Marine Renewable Energy Legislation: A Consultative Process. Retrieved from: <http://www.oera.ca/wp-content/uploads/2013/05/Fournier-Final-Report.pdf>

Government of Canada. (March 2011). Aboriginal Consultation and Accommodation - Updated Guidelines for Federal Officials to Fulfill the Duty to Consult. Retrieved from <http://www.aadnc-aandc.gc.ca/eng/1100100014664/1100100014675>

Government of Canada. (24 September, 2012a). Aboriginal Fisheries Strategy. Retrieved from <http://www.dfo-mpo.gc.ca/fm-gp/aboriginal-autochtones/afs-srapa-eng.htm>

Government of Canada. (13 September, 2012c). Aboriginal Aquatic Resource and Oceans Management Program. Retrieved from <http://www.dfo-mpo.gc.ca/fm-gp/aboriginal-autochtones/aarom-pagrao/index-eng.htm>

Government of Canada. (October 2017b). About Indigenous and Northern Affairs Canada. Retrieved from <https://www.aadnc-aandc.gc.ca/eng/1100100010023/1100100010027>

Government of Canada. (1 September, 2010a). Archived – Evaluation of the Atlantic Integrated Commercial Fisheries Initiative (AICFI). Retrieved from <http://www.dfo-mpo.gc.ca/ae-ve/evaluations/10-11/6b118-eng.htm>

Government of Canada. (15 September 2010b). First Nations/Private Sector Partnerships in British Columbia. Retrieved from <https://www.aadnc-aandc.gc.ca/eng/1100100021069/1100100021070>

Government of Canada. (4 March, 2014). Atlantic Integrated Commercial Fisheries Initiative. Retrieved from <http://www.dfo-mpo.gc.ca/fm-gp/aboriginal-autochtones/aicfi-ipcia/index-eng.htm>

Government of Canada. (November 2017c.) Environment and Climate Change Canada. Mandate. Retrieved from <https://www.canada.ca/en/environment-climate-change/corporate/mandate.html>

Government of Canada. (January 2018). Reconciliation. Retrieved from <https://www.aadnc-aandc.gc.ca/eng/1400782178444/1400782270488>

Government of Canada. (13 September, 2012b). Strengthening Our Relationship - The Aboriginal Fisheries Strategy and Beyond - October 2003. Retrieved from <http://www.dfo-mpo.gc.ca/fm-gp/aboriginal-autochtones/afs/afsoct03-eng.htm>

Government of Nova Scotia. (October 2017a). What we do. Retrieved from: <https://energy.novascotia.ca/department/what-we-do>

Government of Nova Scotia. (2007). "Made-In-Nova Scotia Process" Mi'kmaq-Nova Scotia-Canada Framework Agreement. Retrieved from <https://novascotia.ca/abor/docs/Framework-Agreement.pdf>

Galbraith, L. (2014). Making space for reconciliation in the planning system. *Planning Theory & Practice*, 1-27.

*Haida Nation v British Columbia (Minister of Forests)*, (2004) 3 S.C.R. 511

*Indian Act*, R.S.C., 1985, c. I-5.

Indigenous and Northern Affairs Canada. (2002). Umbrella Agreement. Retrieved from: <https://www.aadnc-aandc.gc.ca/eng/1100100028635/1100100028636>

Indigenous Bar Association. (2011). UN Understanding and Implementing the UN DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES: An Introductory Handbook. Retrieved from: IPCC, 2014:

IPCC. (2014). Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

Isaacman, Daborn and & Redden. (2012). A Framework for Environmental Risk Assessment and Decision-Making for Tidal Energy Development in Canada. Report to Fisheries and Oceans Canada and the Offshore Energy Research Association of Nova Scotia. *Acadia Centre for Estuarine Research (ACER)* Publication No. 106.



- Karpouzoglou, Dewulf, & Clark. (2016). Advancing adaptive governance of social-ecological systems through theoretical multiplicity. *Environmental Science and Policy*, 57, 1-9.
- Kerr, Colton, Johnson, & Wright. (2015). Rights and ownership in sea country: Implications of marine renewable energy for indigenous and local communities. *Marine Policy*, 52, 108-115.
- Kirchhoff, Gardner, & Tsuji. (2013). The Canadian Environmental Assessment Act, 2012 and Associated Policy: Implications for Aboriginal Peoples. *International Indigenous Policy Journal*, 4(3), 1-14.
- KMKNO. (28 September 2016). Mi'kmaq Frustrations Rise with In-Stream Tidal. Retrieved from [http://mikmaqrights.com/wp-content/uploads/2014/01/Tidal-Press-Release\\_28Sept16.pdf](http://mikmaqrights.com/wp-content/uploads/2014/01/Tidal-Press-Release_28Sept16.pdf)
- KMKNO. (n.d.). Mi'kmaq Ecological Knowledge Study Protocol. 2<sup>nd</sup> Edition. Retrieved from: <https://novascotia.ca/abor/aborlearn/docs/MEK%20Protocol%20Second%20Edition.pdf>
- Krupa, J. (2012). Identifying barriers to aboriginal renewable energy deployment in Canada. *Energy Policy*, 42, 710.
- Krupa, J., Galbraith, L., & Burch, S. (2015). Participatory and multi-level governance: Applications to Aboriginal renewable energy projects. *Local Environment*, 20(1), 81-101.
- Liedloff, Woodward, Harrington, & Jackson. (2013). Integrating indigenous ecological and scientific hydro-geological knowledge using a Bayesian Network in the context of water resource development. *Journal of Hydrology*, 499, 177-187.
- Lertzman, D., & Vredenburg, A. (2005). Indigenous Peoples, Resource Extraction and Sustainable Development: An Ethical Approach. *Journal of Business Ethics*, 56(3), 239-254.
- Litschka, M., Suske, M., & Brandtweiner, R. (2011). Decision Criteria in Ethical Dilemma Situations: Empirical Examples from Austrian Managers. *Journal of Business Ethics*, 104(4), 473-484.
- Lloyd-smith, G. (2017). An Ocean of Opportunity: Co-governance in Marine Protected Areas in Canada. *West Coast Environmental Law*. Retrieved from [https://www.wcel.org/sites/default/files/publications/2017-06-oceanofopportunity-cogovernance-brief-eng\\_0.pdf](https://www.wcel.org/sites/default/files/publications/2017-06-oceanofopportunity-cogovernance-brief-eng_0.pdf)
- Mi'kmaq Conservation Group. (July 2016). Tidal Energy in the Bay of Fundy, MCG and You. Retrieved from <http://www.mikmaqconservation.ca/news/tidal-energy-in-the-bay-of-fundy-mcg-and-you/#>
- Mi'kmaq Rights Initiative. (n.d.) A Mi'kmaq Renewable Energy Strategy. Overview and summary report. Retrieved from <https://novascotia.ca/abor/aborlearn/docs/MRES.pdf>

Minister of Justice. Canada Fisheries Act, RSC, Canada, 1985, c. F-14.

Mulrennan, M., & Scott, C. (2000). Mare Nullius : Indigenous Rights in Saltwater Environments. *Development and Change*, 31(3), 681-708.

Natural Resources Canada (NRCan). (20 November 2017). What is marine renewable energy? Retrieved from: <http://www.nrcan.gc.ca/energy/renewable-electricity/marine-energy/7371>

Nova Scotia Commission on Building our New Economy. (2014). Now or Never: An Urgent Call to Action for Nova Scotians, A Report from the Nova Scotia Commission on Building our New Economy. Retrieved from: <https://onens.ca/img/now-or-never.pdf>

Nova Scotia Department of Energy. (2012). Marine Renewable Energy Strategy. Retrieved from: <http://energy.novascotia.ca/sites/default/files/Nova-Scotia-Marine-Renewable-Energy-Strategy-May-2012.pdf>

Nursey-Bray, M., & Jacobson, C. (2014). 'Which way?': The contribution of Indigenous marine governance. *Australian Journal of Maritime and Ocean Affairs*, 6(1), 27-40.

O'Neil, R., & Pienta, F. (1994). Economic criteria versus ethical criteria toward resolving a basic dilemma in business. *Journal of Business Ethics*, 13(1), 71-78.

Office of Aboriginal Affairs. (2012). Proponents' Guide: The Role of Proponents in Crown Consultation with the Mi'kmaq of Nova Scotia. Retrieved from: <https://novascotia.ca/nse/ea/docs/ea-proponents-guide-to-mikmaq-consultation.pdf>

Offshore Energy and Research Association. (2009). Mi'kmaq Ecological Study Phase 1 - Bay of Fundy, Nova Scotia including the Fundy Tidal Energy Demonstration Project Site. Retrieved from: <http://www.oera.ca/wp-content/uploads/2013/04/MEKS-Phase-I-Final-Report.pdf>

Paul, D. (2006). We were not the savages: Collision between European and Native American civilizations. (Third ed., First Nations history). Halifax, Nova Scotia: Fernwood Publishing.

Plummer, & Fennell. (2007). Exploring co-management theory: Prospects for sociobiology and reciprocal altruism. *Journal of Environmental Management*, 85(4), 944-955.

Posey, D., & Plenderleith, K. (2004). Indigenous knowledge and ethics.

Prosper, K., McMillan, L., Davis, A., & Moffitt, M. (2011). Returning to Netukulimk: Mi'kmaq cultural and spiritual connections with resource stewardship and self-governance. *International Indigenous Policy Journal*, 2(4).

*R. v. Sparrow* (1990) 1 S.C.R. 1075.

- Royal Commission on Aboriginal Peoples (1996). Report of the Royal Commission on Aboriginal Peoples. *Indian and Northern Affairs Canada*. Retrieved on <http://www.bac-lac.gc.ca/eng/discover/aboriginal-heritage/royal-commission-aboriginal-peoples/Pages/final-report.aspx>
- Ruwhiu, D., & Carter, L. (2016). Negotiating "meaningful participation" for Indigenous peoples in the context of mining. *Corporate Governance*, 16(4), 641-654.
- Sipekne'katik. 2016. Assembly of Nova Scotia Chiefs/KMKNO. Letter to Sipekne'katik Band Members. Retrieved from <http://sipeknekatik.ca/assembly-of-nova-scotia-chiefskknkno/>
- Sutherland, M., & Nichols, S. (2006). Issues in the Governance of Marine Spaces. Administering Marine Spaces: International Issues. *The International Federation of Surveyors (FIG)*.
- Szablowski, D. (2010) Operationalizing Free, Prior, and Informed Consent in the Extractive Industry Sector? Examining the Challenges of a Negotiated Model of Justice, *Canadian Journal of Development Studies*, 30(1-2) 111-130
- Thornton, T., & Scheer, A. (2012). Collaborative Engagement of Local and Traditional Knowledge and Science in Marine Environments: A Review. *Ecology and Society*, 17(3), 8.
- Trigger, Keenan, De Rijke, & Rifkin. (2014). Aboriginal engagement and agreement-making with a rapidly developing resource industry: Coal seam gas development in Australia. *The Extractive Industries and Society*, 1(2), 176-188.
- Truth and Reconciliation Canada. (2015). *Honouring the truth, reconciling for the future: Summary of the final report of the Truth and Reconciliation Commission of Canada*. Winnipeg: Truth and Reconciliation Commission of Canada.
- Von Der Porten. S. (2012). Canadian Indigenous Governance Literature: A Review. *AlterNative: An International Journal of Indigenous Peoples*, 8(1), 1-14.
- Von der Porten, S., De Loë, R., & McGregor, D. (2016). Incorporating Indigenous Knowledge Systems into Collaborative Governance for Water: Challenges and Opportunities. *Journal of Canadian Studies*, 50(1), 214-243.
- Von Der Porten, & De Loë. (2013). Collaborative approaches to governance for water and Indigenous peoples: A case study from British Columbia, Canada. *Geoforum*, 50, 149-160.
- Von Der Porten, S., & De Loë, R. (2014). How Collaborative Approaches to Environmental Problem Solving View Indigenous Peoples: A Systematic Review. *Society & Natural Resources*, 1-17.

- Von Der Porten, Lepofsky, Mcgregor, & Silver. (2016). Recommendations for marine herring policy change in Canada: Aligning with Indigenous legal and inherent rights. *Marine Policy*, 74, 68-76.
- Weiss, K., Hamann, M., & Marsh, H. (2012). Bridging Knowledges: Understanding and Applying Indigenous and Western Scientific Knowledge for Marine Wildlife Management. *Society & Natural Resources*, 1-18.
- Whitman, Z. (2013). Finding Balance: Determining The Relationship Between "Economic Development," Traditional Knowledge and Natural Resource Management in the Context of the Nova Scotia Mi'kmaq, ProQuest Dissertations and Theses.
- Williams, T., & Hardison, P. (2013). Culture, law, risk and governance: Contexts of traditional knowledge in climate change adaptation. *Climatic Change*, 120(3), 531-544.
- Wright, G. (2015). Marine governance in an industrialised ocean: A case study of the emerging marine renewable energy industry. *Marine Policy*, 52, 77-84.
- Working group on Natural Resource Development (2015). First Nations and Natural Resource Development, Advancing Positive Impactful Change. Retrieved from: <http://www.afn.ca/uploads/files/Working-Group-on-Natural-Resource-Development-Report.pdf>
- World Commission on Environment and Development. (1987). Report of the World Commission on Environment and Development: Our Common Future. Retrieved from: <http://www.un-documents.net/our-common-future.pdf>
- Young, O., Osherenko, G., Ekstrom, J., Crowder, L., Ogden, J., Wilson, J., . . . Peach, R. (2007). Solving the Crisis in Ocean Governance: Place-Based Management of Marine Ecosystems. *Environment: Science and Policy for Sustainable Development*, 49(4), 20-32.