

Enhancing the Marine Protected Area (MPA) Process in the British Columbia Northern  
Shelf Bioregion MPA Network to Improve Indigenous Participation

By

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## **Abstract**

The development of marine protected areas (MPAs) in Canada is increasing in order to maintain and conserve important fish and marine mammal species and habitats. However, with protection comes certain regulations that affect the use of marine spaces. Regulations can restrict access and use of the marine environment, including certain fishing practices or the harvesting of specific species and some are designated to be no-go and no-take areas. While MPAs are important for the conservation of marine ecosystems, it is important that the rights and values of Indigenous peoples are not being violated with their implementation. This study examines the British Columbia Northern Shelf Bioregion (NSB) MPA network to identify opportunities and constraints in the current process to identify governance mechanisms that can be incorporated to enhance MPA effectiveness and uphold Indigenous inherent and Treaty rights. Semi-structured interviews were conducted with First Nations staff and individuals, and federal and provincial government representatives to understand the perception of Indigenous participation in the MPA network process. Analysis of the interviews, along with evaluations of current MPA network strategies being used in the NSB have identified capacity building, respect and trust and past NSB initiatives as opportunities while existing governance structures and the non-inclusivity of all relevant First Nations in the NSB were highlighted as constraints. These findings have been used to inform management recommendations for the MPA process.

*Keywords:* Marine protected areas, British Columbia Northern Shelf Bioregion, First Nations, Indigenous participation, governance

## **List of Abbreviations**

BC	British Columbia
DFO	Fisheries and Oceans Canada
EBM	Ecosystem-Based Management
ECCC	Environment and Climate Change Canada
FSC	Food, Social and Ceremonial
IPA	Indigenous Protected Area
IUCN	International Union for Conservation of Nature
MaPP	Marine Plan Partnership
MPA	Marine Protected Areas
MPATT	Marine Protected Area Technical Team
NMCA	National Marine Conservation Area
NSB	Northern Shelf Bioregion
PNCIMA	Pacific Northwest Coast Integrated Management Area
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UN	United Nations

## **Acknowledgments**

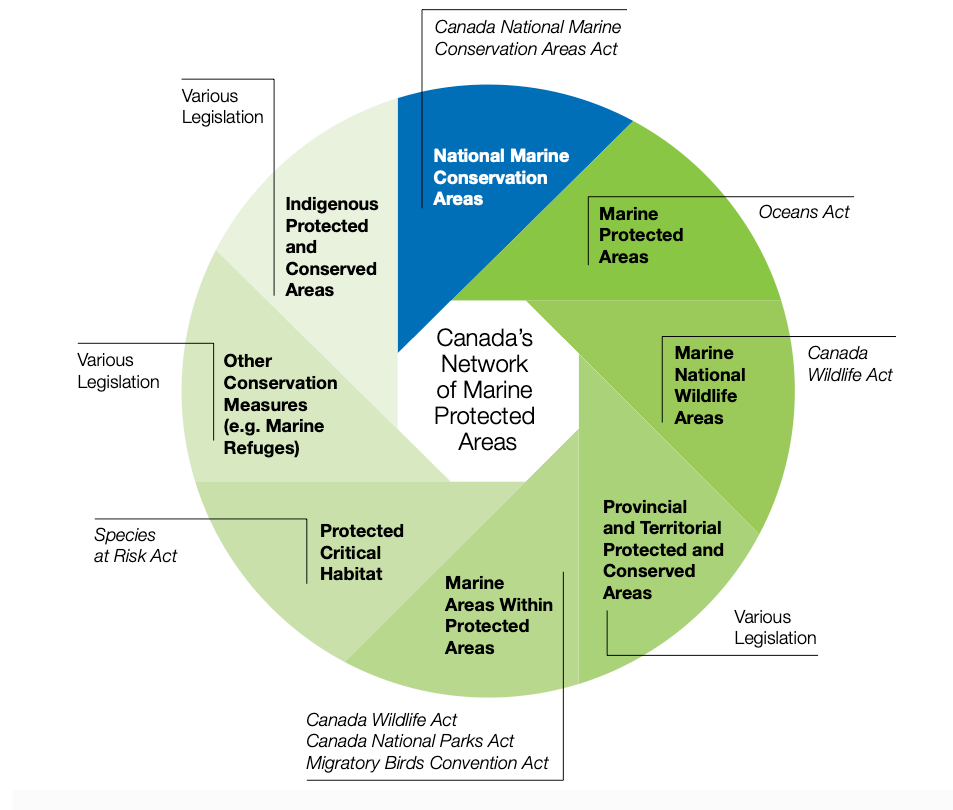
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## Chapter 1: Introduction

The Canadian Government formally endorsed the goal of having 10% of marine and coastal environments protected by 2020 established under the United Nations Convention on Biological Diversity Aichi Target 11, which it surpassed in August 2019 (DFO, 2019a). In addition to reaching their conservation target, the federal government has also committed to taking steps that will allow for further protection beyond the 10% in the coming years. Protection methods in Canada are comprised of federal, provincial, territorial and Indigenous protected areas shown in Figure 1 (Parks Canada, 2019). Marine protected areas (MPAs) in Canada have traditionally been governed by a top-down approach, with the relevant government agency being the main regulatory body; with its primary goal to ensure the protection and conservation of important fish and marine mammal habitats, endangered marine species, unique features and areas of high biological productivity and biodiversity (Kelleher, 1999).



**Figure 1:** Canada's marine protection area tools and other conservation measures (Parks Canada, 2019).

Indigenous peoples with traditional territories that include coastal areas rely on the marine resources for their continued societal growth (Eckert, Ban, Tallio, Turner, 2018). An area of contention with MPAs is in their implementation, where in some cases, Indigenous communities can lose access to these traditional coastal lands and marine resources and uses, ultimately infringing upon their inherent and Treaty rights. Currently, a project is underway in British Columbia (BC) to establish a network of MPAs in the Pacific North Coast. This initiative is being developed cooperatively between the Government of Canada, the province of British Columbia and 16 First Nations communities.

Using a case study approach, this research examines the dual purpose of how Canada can best minimize the infringement of Indigenous rights while subscribing to the global targets for marine conservation.

### **1.1 Marine Protected Areas and Marine Protected Area Networks**

Over the last few decades MPAs have become important conservation tools to meet global conservation targets of coastal and marine spaces (Fraschetti, Terlizzi, Micheli, Benedetti-Cecchi, & Boero, 2002). An MPA defined by the International Union for Conservation of Nature (IUCN) is:

Any area of intertidal or sub-tidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment (Kelleher, 1999).

The main goal of an MPA is to protect and conserve important fish and marine mammal habitats, endangered marine species, unique features and areas of high biological productivity and biodiversity (Kelleher, 1999). Currently, about 4.8% of the world's oceans are protected and actively managed (MPAtlas, 2019) and the designation and implementation of MPAs have been growing exponentially since the 1960s (Worm, 2017). Canada has approximately 13.8% of its marine and coastal areas protected as of August 1, 2019, which have been established using various federal and provincial legislative tools (Government of Canada, 2011). The legislative tools that are used to designate MPAs in Canada fall within six ICUN categories of protection (Table 1), which are characterised by their level of protection (Government of Canada, 2011):

**Table 1:** IUCN categories of protection (Government of Canada, 2011).

Category Ia	Strictly protected areas set aside to protect biodiversity and also possibly geological/ geomorphological features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring.
Category Ib	Usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.
Category II	Large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities.
Category III	Set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living component such as a specific coralline feature. They are generally quite small protected areas and often have high visitor value.
Category IV	Aim to protect particular species or habitats and management reflects this priority. Many category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.
Category V	Areas where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.
Category VI	Conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area.

Even with these legislative tools and defined protection categories there are concerns among conservationists and researchers about the effectiveness of MPAs in reaching their conservation and management objectives (Agardy, di Sciara, & Christie, 2010; Halpern, 2014). One criticism regarding MPAs is that individual MPA designs are

not enough to meet conservation goals and an MPA network can provide more ecological benefits to the marine space which in turn creates secondary benefits to the economy, society and culture (Roberts, Halpern, Palumbi, & Warner, 2001; Partnership for Interdisciplinary Studies of Coastal Oceans, 2007).

MPA networks are designed to operate co-operatively and Canada has adopted the ICUN definition of an MPA network:

A collection of individual marine protected areas that operates cooperatively and synergistically, at various spatial scales, and with a range of protection levels, in order to fulfill ecological aims more effectively and comprehensively than individual sites could alone (Government of Canada, 2011).

The theory of an MPA network is that it can minimize any potential negative economic, social and cultural impacts that a larger single MPA can have on an area (Groud-Colver, et. al., 2014). Determining whether MPAs in a network are working coherently together is difficult as there are few research studies looking at their effectiveness. Despite some lack of evidence, there are success stories for MPA networks including West Hawaii Island (Rossiter & Levine, 2014; Groud-Colver, et. al., 2014). While, the success of an MPA or MPA network is site specific, proper governance and management have been cited as key factors in determining whether or not they will be successful (Christie & White, 2007a; Rossiter & Levine, 2014; UN Environment 2019a).

## **1.2 Marine Protected Area Governance Structures**

Many of the threats that affect the sustainability and conservation of marine environments are caused by human activities: pollution, exploitation, growing human demand, societal failures and human caused climate change (Boonstra et. al., 2015). To help direct people's behaviour to make more effective decisions in line with MPA objectives, understanding governance structures is key (UN Environment, 2019a). The UN has identified four broad categories of MPA governance: government-led, decentralized, community-led and private.

### 1.2.1 Government-led

MPAs that are governed through a government-led approach fall under state authorities with clear legal frameworks (UN Environment, 2019a). These types of governance structures put high importance on the roles of governments and professional experts for sources of information, regulations and enforcement. Advantages to government-led MPAs is the government's ability to exert authority over an MPAs regulations and the resources the state can offer (McCay, & Jones, 2011). Government-led MPAs tend to focus their objectives on conservation of critical habitats, biodiversity and over-fished fish stocks; while this is the main goal of an MPA and important, they can often ignore the socio-economic and cultural impacts on the coastal communities (Shah, Dissanayake, Fujita, & Nunes, 2019). The process generally takes on a consultative one with stakeholders to get input on decisions that will be made by state authorities (UN Environment, 2019a).

The effectiveness, in terms of achieving conservation objectives, of government-led MPAs has been in debate for many years now (Halik, Verweij, & Schluter, 2018). There are several examples where government-led MPAs have failed to successfully manage marine environments. Examples include the California government failed attempts to establish MPAs between 1999 and 2002 (Weible, 2008), the Florida Keys Nations Marine Sanctuary (Suman, Shivlani, & Milon, 1999), and several examples from Southeast Asia, in the Philippines and Indonesia (Christie, 2004). While each of these examples have their own reasons for being unsuccessful, a commonality between them was lack of social acceptance and stakeholder participation. There have been noted success of government-led MPAs including the Great Barrier Reef Marine Park, however they have employed a more adaptive approach to their management to include a broader range of participation (Halik, Verweij, & Schluter, 2018; UN Environment, 2019b). There has also been success in the government-led North East Kent European Marine Site where the management and governance process has been adaptive over the years to changing priorities and the inclusion of stakeholder participation (Roberts, & Jones, 2013).

In Canada, the majority of MPAs are government-led and are generally managed by DFO under the *Oceans Act* (Guénette, & Alder, 2007). The Gilbert Bay MPA in

Newfoundland and Labrador is governed by DFO and was designated in 2005, with the initial initiation driven by local communities to protect the cod population in the area in 1998. The process in which this MPA was established has been considered a success because it had the support of local interest groups and they were engaged from the beginning of the process (Gu nette, & Alder, 2007). In addition, strong, lasting relationships were developed during the consultation period between groups and that facilitated a strong commitment to the project. Not all government-led MPAs in Canada have led to positive outcomes. Race Rocks, BC is an ecological reserve designated by the province of BC in 1980 and a DFO area of interest since 1998 (DFO, 2017). This project has met with several challenges and sources of conflict, despite its consensus planning approach with interest groups. Among the challenges identified, First Nations did not have adequate representation and terms of the agreements were not adequately established from the beginning of the process (Gu nette, & Alder, 2007).

### *1.2.2 Decentralized*

In decentralized governance some of the decision-making authority and various responsibilities are transferred to other groups including lower levels of government such as, provincial, municipal, or community, or private organizations (UN Environment, 2019a). The level of decentralization will be site specific and does not remove the central authority of the state (UNDP, 2006). Decentralized governance offers solutions to problems that government-led governance is said to create or fails to address, by transferring authority, building capacity, improving efficiency, creating accountability and better inclusion of local communities (Kiwango, Komakech, Tarimo, & Martz, 2015). Often times decentralization is referred to as co-management (Bene et. al., 2008) and is a more formal way of collaborating with other actors in the governance of an MPA (Halik, Verweij, & Schluter, 2018).

Implementing a decentralized governance structure can be challenging and despite the intentions of the state to transfer authority or decision-making power over to other actors there is often a reluctance to do so (Kiwango, Komakech, Tarimo, & Martz, 2015). In addition, challenges with capacity can undermine the effectiveness of a co-managed MPA as seen with the Moheli Marine Park (Poonian, Hauzer, & Ibouira, 2008). This MPA was considered a prime example of how a co-managed MPA should operate.

However, once short-term external funding sources were depleted, the MPA could no longer operate effectively. There were also many other aspects to the MPA that contributed to its ineffectiveness, including ineffective monitoring and enforcement, and unrealistic expectation that were bestowed onto local stakeholders, as a result of inadequate management by the committee team from the start of the project (Poonian, Hauzer, & Iboura, 2008). While there are inherent challenges with decentralized governance structures, researchers suggest that MPA effectiveness can be improved with proper implementation (McCay, & Jones, 2011). Examples such as the Karimunjawa National Park in Indonesia saw success with their co-management approach to governance by increasing community involvement and participation. New laws and regulations were implemented to share responsibilities among stakeholders and local communities and participatory incentives were provided (Campbell, Kartawijaya, Yulianto, Prasetya, & Clifton, 2013).

### *1.2.3 Community-led*

Governance structures that are community-led are generally initiated from the bottom-up by local stakeholders and community members, often through local organizations. Implementation and decision-making powers are the responsibility of the local stakeholders but often require state support for enforcement (UN Environment, 2019a). Community-led governance is a way to help increase marine conservation and deal with a lack of support from government-led approaches, it is also believed to increase compliance and accountability among community members and stakeholders (Oyanedel, Marin, Castilla, & Gelcich, 2015). However, implementing successful community-led MPAs can be quite challenging, as seen in Indonesia. Researchers found that there were high failure rates for community-led MPAs and increasing success could include strategies of selecting appropriate community organizers, building sufficient capacity and ensuring proper community participation (Crawford, Kasmidi, Korompis, & Pollnac, 2001). In contrast locally managed marine areas in Madagascar have been increasing and the effectiveness of the management in the Velondriake locally managed marine area has been attributed to strong leadership and the vision of key community leaders (Rakotondrasoa, n.d.). Many of these community-led MPAs still face

enforcement challenges due to local and national legal structures not empowering community leaders and members (Rocliffe, Peabody, Samoily, & Hawkins, 2014).

At this time it could not be determined if Canada has any formally acknowledge community-led MPAs.

#### *1.2.4 Private*

Privately governed MPAs are granted property rights and associated management rights, they are mostly governed by the private sector or a non-government organization. These types of MPA still require state authority for enforcement and generally have conditions that must be followed; if the conditions are not met then the rights to the MPA can be revoked (UN Environment, 2019a). Privately governed MPAs offer several incentives that can make these types of MPAs more appealing. For example, if the MPA is an ecotourism site, the profits can be reinvested to support local community development and provide environmental education to tourists, students and community members, as seen in the Chumbe Island Coral Park in Tanzania (Jones, Qiu, & De Santo, 2013). Privately governed MPA do face challenges and are vulnerable to changes in government and economic situations. If government regimes change, support from government authorities may alter, thereby affecting the ability for private MPAs to operate (Jones, Qiu, & De Santo, 2013).

Central to many of these MPA governance structures is the struggle to meet the conservation objectives and goals of the MPA, while ensuring all relevant user groups are appropriately integrated into the process. In Canada, often times Indigenous peoples are not appropriately represented in the MPA process violating their inherent and Treaty rights.

### **1.3 Indigenous Rights in Canada**

In Canada, individual Indigenous peoples, First Nations, Metis, and Inuit, are often identified by whether or not they have status, or which nation, band, clan, tribal council or treaty office they are a member of (Kesler, 2009). However, Indigenous identity goes beyond what nation a person belongs to, it has a deeper meaning that is reflected in a strong spiritual connection to the land and other cultural traditions (Kesler, 2009). Indigenous peoples in Canada possess certain inherent and Treaty rights, which



can be difficult to define due to the fact each First Nation is unique and functions as its own distinct society. In general, Indigenous rights include rights to land, subsistence, resources and activities, self-determination and self-government, including the right to practice one's own culture, religion and language (Hanson, 2009a).

When referring to Indigenous rights, in Canada, it is not referring to rights that have been bestowed onto them by Crown governments, they are the result of their original occupation of their traditional lands and social structures, independent of the nation of Canada (Hanson, 2009a). For the purposes of this research, Crown governments are referring to the representative of state and government under Canada's constitutional monarchy (Canada, 2018).

### *1.3.1 Treaties and the Indian Act*

When Europeans began settling and colonizing what is now Canada, treaties were negotiated between the Crown and Indigenous Nations. The treaties were a guide to how First Nations and Crown governments could coexist, share resources and maintain their respective ways of life. Treaties include historic treaties, those agreed upon between 1701-1923 and modern treaties, or comprehensive land claims, those signed from 1973 to present (CIRNAC, 2018). However, many of these treaties and inherent rights of Indigenous peoples were not upheld the Crown and as colonialism continued, the relationships between the Crown and First Nations were eroded by colonial and paternalistic policies that were eventually enacted into laws (CIRNAC, 2018).

The *Indian Act* of 1876 was a way for the Canadian government to assert control and assimilate Indigenous peoples into Canadian society (Hanson, 2009b). Indigenous nations in Canada are not homogenous, they have their own cultures, governance systems, languages, ceremonies, and ways of living. The Indian Act imposed governance changes to Indigenous communities by implementing elected *Indian Act* Chiefs who were given power and authority that were not from traditional bases of the community (McMillan, 1996). By removing the traditional governance systems and implementing a homogenous Eurocentric political system, the Government of Canada was not recognizing the diversity among the Indigenous nations and how these governance systems were developed over centuries to best fit the needs of the people. The enactment

of the Indian Act Chiefs ultimately served as a way to assimilated Indigenous peoples into Canadian society (ICT, 2015). The Indian Act also allowed the government to determine where groups of Indigenous peoples were going to live, forming reserves (Hanson, 2009c).

Reserve land is land set aside under the Indian Act and treaty agreements that are meant to be the exclusive use of an Indigenous band but is not owned by them (Hanson, 2009c). The lands set aside were often times not the traditional lands that the community used and, in some cases, offered no natural resources. It also forced nomadic and semi-nomadic nations to remain stationary, disrupting their traditional way of life. Reserves divided people and nations that had previously existed with each other for thousands of years and prevented traditional societal activities, like hunting and gathering, fishing and ceremonial land uses (Hanson, 2009c).

### *1.3.2 Reconciliation*

Colonialism had many lasting impacts on Indigenous people and it ultimately removed their ability to self-govern, marginalized their culture and identity and took away their rights (Aquash, 2013). The Canadian government has recognized some of the injustices that were imposed onto Indigenous peoples and have been attempting to make steps to reconcile. A formal apology from the Government of Canada was issued in 2008 to acknowledge the government's involvement of the negative impacts it had on Indigenous people (Hanson, 2009c). Prior to this public apology, a class action lawsuit was filed against the Government of Canada for its involvement in the residential schools. Residential schools were a schooling system implemented by the Canadian government from 1870's to 1990's for Indigenous children to assimilate them into Canadian culture by eliminating their language, culture, and spiritual beliefs. These schools have had devastating and lasting consequences on the physical and mental well-being of Indigenous peoples (Wilk, Maltby, & Cooke, 2017). Part of the agreement was the establishment of the Truth and Reconciliation Commission to promote truth, healing, reconciliation and rebuild Indigenous relationships (Government of Canada, 2019). Recommendations to improve relationships have been made by the Truth and Reconciliation Commission and part of their recommendations is to implement the

United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (Government of Canada, 2019).

UNDRIP is an international human rights instrument adopted by the United Nations (UN) General Assembly in 2007. It addresses the rights of Indigenous peoples and aims to protect those collective rights that have not been addressed in other human rights charters (Hanson, 2010). Canada was first opposed to signing on to UNDRIP but in 2016, the Canadian government announced it would fully support the declaration. UNDRIP contains 46 articles pertaining to rights around identity, religion, culture, language, land, health, education, and community. Notably, Article 26 states “Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired” (United Nations, 2007). Article 3 states Indigenous peoples have the right to self-determination. By virtue of that right Indigenous peoples freely determine their political status and freely pursue their own economic, social and cultural development” (United Nations, 2007). These articles have implications on previous Canadian legislation. First, it challenges the legality of reserves and what land the Canadian government considers Crown Land and who has jurisdiction over the resources in traditional Indigenous lands. Secondly, the right to self-determination and the right to freely pursue economic, social and cultural development has implications on resource management.

In British Columbia, Bill 41 was passed in November 2019, mandating the provincial government to bring its policies and laws into harmony with the articles in UNDRIP. British Columbia is the first jurisdiction in Canada to make official commitments for implementing UNDRIP and while there is still a lot of work to be done on how these implementations will be inducted, this a large milestone for First Nations in British Columbia.

#### **1.4 Management Problem**

The importance of protected marine and coastal environments has become increasingly important in Canada in order to conserve important fish and marine mammal species and habitats. However, with protection comes certain restrictions within the marine space, whether it be certain fishing practices, harvesting of specific species or marine access. In addition, understanding the dynamics of marine ecosystems can be a

challenge because it not only involves the marine ecosystem but the people that use the marine resources. Indigenous communities rely on marine resources not only for subsistence but for cultural purposes as well. With MPA implementation, these uses and inherent rights to traditional territories may become infringed upon. Crown governments at both the provincial and federal levels have been making strides to improve Indigenous relations, but Indigenous involvement has been largely discounted in MPA governance. There is an opportunity for Crown governments to not just consult with Indigenous communities on the MPA process but to give them a stronger voice and more involvement in how the marine space is governed. This research postulates that there needs to be better incorporation of Indigenous knowledge and more meaningful First Nations contributions to MPA governance to ensure their ways of life and rights are not being infringed.

### **1.5 Research Question**

In order to address the indicated management problem around the possible infringement of Indigenous rights in the establishment of marine protected areas, the following main research question has been posed:

*How can MPA processes be enhanced to improve Indigenous representation and participation in the BC Northern Shelf Bioregion MPA network?*

The following sub-questions have been researched to help answer the overarching question:

- 1. What are the processes currently being used to guide MPA development and implementation?*
- 2. What are the opportunities and constraints for Indigenous peoples to incorporate their values, interests and knowledge within the current MPA processes?*
- 3. What governance mechanisms need to be put in place to improve both MPA effectiveness and uphold Indigenous inherent and Treaty rights?*

### **1.6 Organizational Flow of the Paper**

This graduate project was divided into six chapters, following chapter 1's introduction, chapter 2 provides the methodology used to answer the research question. Chapter 3 provides relevant background information on the case study used for this graduate project. Chapter 4 provides an evaluation of the results obtained from interviews

and desktop research. Chapter 5 discusses the implications of the results on the research question and management problem. Finally, chapter 6 provides recommendations related to the research findings and discussion, as well as concluding remarks.

## **Chapter 2: Methodology**

To address the management problem presented and begin answering the main research question and sub-questions, three main steps were executed, literature review, data collection, which consisted of semi-structured interviews and data analysis.

### **2.1 Literature Review**

A desktop review of literature was conducted to help answer the first sub-question, determining the current process in place for the NSB MPA Network. In addition, the literature review provided context to the current state of the NSB MPA Network and a general understanding of what has been accomplished up to the point of when this research began.

### **2.2 Data Collection**

The second step in order to undertake this project was data collection from semi-structured interviews. Data collection was designed to help answer and support the literature review findings for this research's first sub-question and answer the second sub-question, identifying opportunities and constraints for Indigenous peoples to incorporate their values, interests and knowledge within the MPA process. To do this, semi-structured interview questions were designed to get information on the participants understanding of the current MPA Network process for gathering information, the roles of government and First Nations in the process, challenges associated with the process and perceptions on co-management and consultation (Appendix I). There were two different interview questionnaires depending on the participants affiliation. Prior to starting the data collection process, approval was sought and received from the Research and Ethics Board, Dalhousie University.

#### *2.2.1 Recruitment*

The study population for this research was focused on participants from government (federal and provincial) and participants from First Nations bands and organizations who were currently participating in the process associated with the NSB MPA Network. The focus was to recruit approximately 12-15 participants for semi-structured based on standard social science methodological rigor (Bhattacharjee, 2012). Participant recruitment was accomplished through various techniques. To recruit

participants from First Nations, phone calls and emails were sent to the partnered First Nations band offices and the First Nations aggregate groups involved in the NSB MPA Network. Recruitment letters were sent via email to all potential participants (Appendix II). Participants were also identified through networking opportunities through the First Nations Fisheries Council of BC. Snowball sampling was also used to recruit potential participants for interviews. Snowball sampling is a research technique where potential participants, generally only one or two, are identified and then asked to refer other individuals, and those individuals are asked to refer others and so forth (Statistics, 2019). It is important to relay to participants that they do not have to refer anyone and ensure they remain anonymous should they request it. From the initial distribution of recruitment letters, subsequent participants were introduced through the ‘snowball’ effect. Participants from the federal and provincial government were recruited through the ‘snowball’ effect from an initial interaction with a federal employee and subsequent interviews. Recruitment letters were sent to all potential participants.

### *2.2.2 Semi-structured Interviews*

Participants that agreed to conduct semi-structured interviews were sent consent forms (Appendix III) to read through, sign and emailed or given back to the primary investigator. Copies of the interview questions were also sent to the participants prior to the interviews, to familiarize themselves with the questions. Interviews were approximately one hour long, and audio recorded with the participants consent. Due to the location of many of participants the majority of the interview were conduct over the phone at time of their choosing. Interviews that were conducted in-person were done so at an agreed upon time and place of the participants choosing.

## **2.3 Data Analysis**

The third step of this research was to analyze the responses from the participants. The recorded interviews were transcribed into a word document manually and the transcriptions were then analyzed qualitatively through content analysis (Erlingsson, & Brysiewicz, 2017). The content analysis was performed manually and placed in an Excel spreadsheet to determine emerging themes. Key findings were represented by direct quotes, with the consent of the participant, and summarized.

## **2.4 Limitations**

Due to the time that this research took place, over the summer months, many potential First Nations participants were either unavailable or had other commitments and priorities that prevented them from participating an interview. This limited the pool of participants able to partake in the research, and as a result not all partnered First Nations were interviewed. In addition, many of the First Nations partnered in the NSB MPA Network are in very remote locations spread across a very large area. This limited the ability to travel to these locations and speak directly with First Nations and build a rapport which could have been beneficial to recruiting more participants.

The initial recruitment process was designed to engage First Nations participants that were listed as being directly involved in the NSB MPA Network. During the literature review and interview process it was discovered that there were many Nations that were not partnered in the process but still had traditional territories in the NSB. There were roughly 22-23 non-partnered First Nations however the exact names of the First Nations were not provided, by government officials or partnered First Nations. There were attempts to contact the other First Nations in the NSB, by phone and email, to try and recruit participants however responses were never received. This resulted in not having the views of the non-partnered First Nations documented for this research.



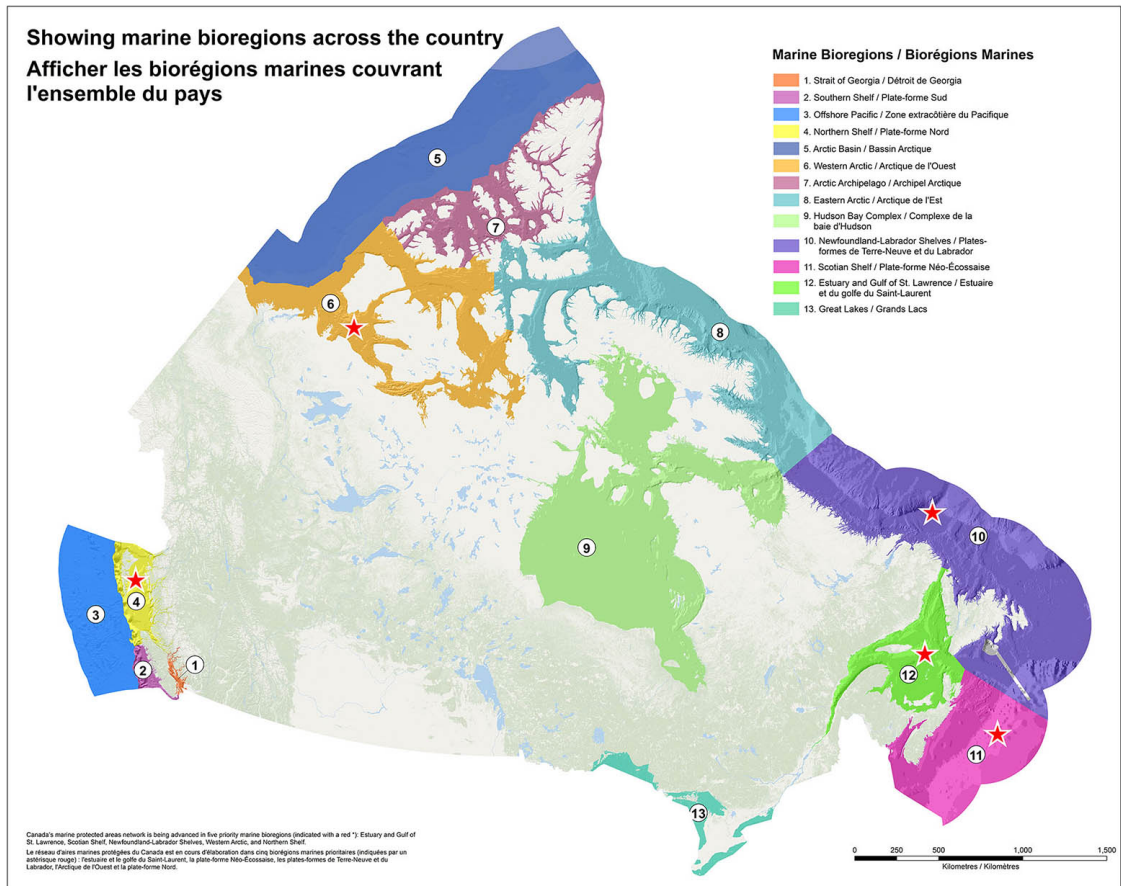
## **Chapter 3: Case Study Area: British Columbia Northern Shelf Bioregion**

This case study was chosen for this research due to the timeliness of the current NSB MPA Network process. The MPA Network process is on-going during the time of this research and final decisions have yet to be made. It is the intention that this research will help inform decisions-makers of this process on areas that can be strengthened to support Indigenous participation, while enhancing MPA effectiveness during the progression of the process.

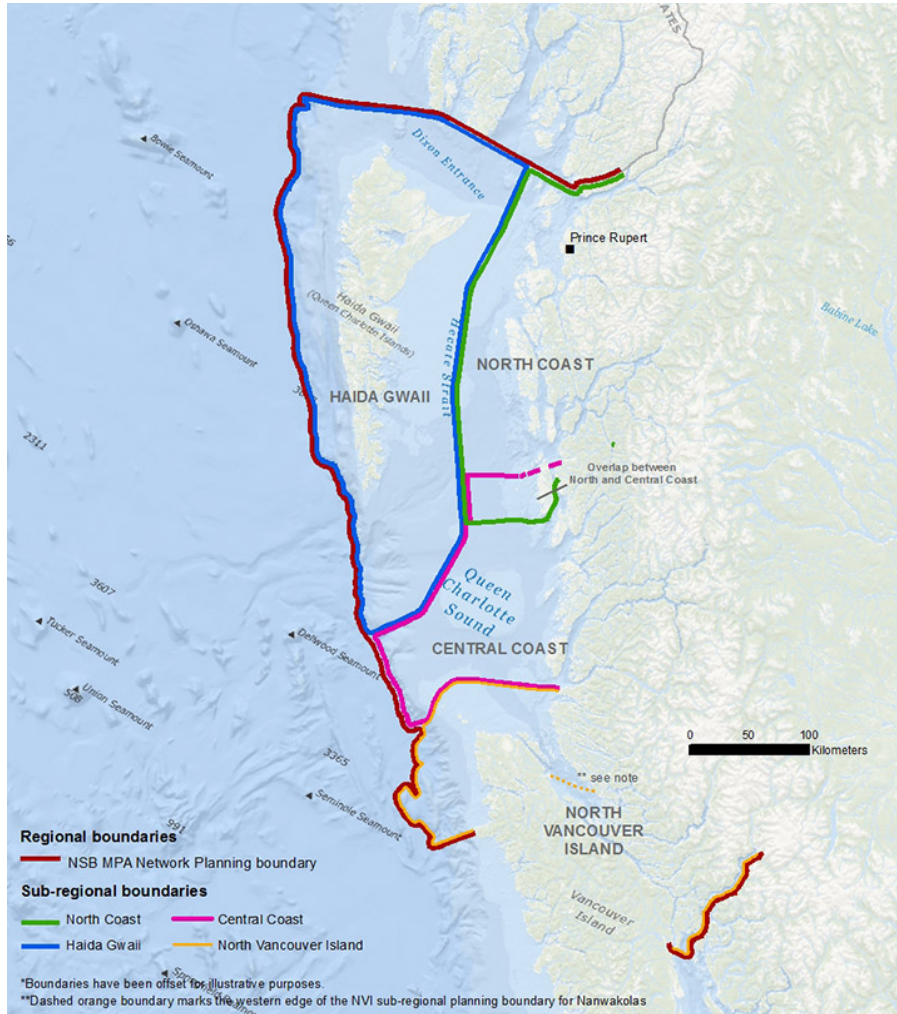
This chapter provides a brief overview of the NSB and network planning area, its ecological significance, First Nations in the area and other initiatives that have taken place.

### **3.1 British Columbia Northern Shelf Bioregion MPA Network Area**

The NSB is one of thirteen identified bioregions in Canada's waters (Figure 2), which have been defined by their attributes and similarities and are being used to inform marine planning initiatives such as MPA network development (DFO, 2018). The NSB, located off the coast of British Columbia (BC), is a large planning area consisting of approximately 101,000 km<sup>2</sup> of marine space and occupying approximately two-thirds of BC's coast (Figure 3). The bioregion is further divided into four subregions, Haida Gwaii, North Coast, South Coast and North Vancouver Island. The NSB makes up the planning area for the NSB MPA Network which began in 2012, in a collaborative governance structure between the federal government, province of BC and 16 First Nations.



**Figure 2:** Canada's marine bioregions (DFO, 2018).



**Figure 3:** NSB MPA Network planning boundary

The overall vision for the MPA network, as stated by the NSB MPA Network process is: “An ecologically comprehensive, resilient and representative network of marine protected areas that protects the biological diversity and health of the marine environment for present and future generations (MPAnetwork, n.d.a.)” To achieve this vision six goals have been outlined: (1) To protect and maintain marine biodiversity, ecological representation and special natural features. (2) To contribute to the conservation and protection of fishery resources and their habitats. (3) To maintain and facilitate opportunities for tourism and recreation. (4) To contribute to social, community and economic certainty and stability. (5) To conserve and protect traditional use, cultural

heritage and archaeological resources. (6) To provide opportunities for scientific research and awareness.

The NSB offers a multitude of ecosystem services which contributes to a variety of human activities (Table 2) and economic benefits. These are among some of the reasons which contributes to the importance of protecting and conserving this region. While numbers are not available specifically for the NSB, overall BC’s oceans sectors exceeded revenues of \$11 billion in 2005 (PNCIMA, 2017).

**Table 2:** Current marine activities in the Northern Shelf (MPAnetwork, n.d.a)

First Nations marine resource uses and activities	Recreational fisheries
Aquaculture	Marine plant harvest
Ocean recreation/tourism	Marine transportation
Tenure on aquatic lands	Ocean disposal
Research, monitoring and enforcement	Commercial fisheries
Seafood processing	Marine energy and mining
National defence and public safety	

### 3.2 Ecological Significance

The NSB is located in a transition zone between the northern area, dominated by the Alaska Coastal Current downwelling and the southern, area by the California Current upwelling (Lucas, Verrin, & Brown, 2007). The area is located in a semi-enclosed basin, with varied bottom topography and freshwater input, setting it apart from other areas along the North American west coast (PNICMA, 2017). The NSB is also unique in terms of the diversity of ecosystems and important habitats the area offers (PNICMA, 2017). The region provides spawning and rearing habitats for local salmon populations and is a marine migration corridor for southerly populations (Irvine, & Crawford, 2011). The region provides an important habitat for ancient colonies of corals and sponge reef communities and a range of invertebrates. In addition, many marine species occur in the region for at least part of their life history including: Northern and southern resident killer whales, transient killer whales and offshore killer whales, Sea otters, Steller and California sea lions, northern fur seals, northern elephant seals, harbour seals, and

leatherback turtles (PNCIMA, 2017). The NSB also supports migratory species such as marine migratory birds, whales, pelagic zooplankton and fish (MPANetwork, n.d.a).

The ecological significance of the NSB that has been presented here is in the context of Canadian/western knowledge and does not necessarily represent Indigenous knowledge. It is important to understand and acknowledge that First Nations living in this area may have different perspectives and values on what constitutes an area as ecologically significant.

### 3.3 First Nations

There are 34 First Nations communities (Table 3) in the NSB MPA Network planning area (Figure 4). They have called their traditional territories home for thousands of years and are inextricably linked to the marine environment (MaPP Initiative, 2015), holding Indigenous inherent and Treaty rights in their territories. First Nations actively participate in marine industries within the NSB including, commercial fishing, hunting and boating building and continue to value and prioritize their participation in these industries (PNCIMA, 2017). Each Nation follows their own set of values and ethics that are fundamental to their culture and society. Much of their identity and culture is founded from their relationship with the marine ecosystem. Their continued ongoing relationship with ocean and marine resources are considered crucial to their food, social, cultural and economic laws, customs, practices and traditions (PNCIMA, 2017).

**Table 3:** List of First Nations communities in the BC Northern Shelf Bioregion

Gitanyow	Gitwinksihlkw	Gitlaxt'aamix
Gitwanganak (Kitwanga)	Gitsegukla (Kitsegukla)	Kitselas
Kitsumkalum	Laxgalts'ap	Gingolx (Kincolith)
Laxkw'alaams	Metlakatla	Gitxaala
Haisla	Gitga'at	Old Masset (Haida Nation)
Skidegate (Haida Nation)	Kitasoo/Xai'xais	Heiltsuk
Nuxalk	Wuikinuxv	Tlatlasikwala
Gwa'sala-'Nakwaxda'xw	Kwakiutl	Quatsino
Gwawaenuk	Dzawada'enuxw	Da'naxada'xw
Kwicksutaineuk/Ah-Kwa-Mish	Mamalilikulla	'Namgis
Tlowitsis	Kwiahah	We Wai Kai
K'ómoks		



**Figure 4:** Location of Northern Shelf Bioregion First Nations communities (Open government of Canada data set using GIS software, 2019).

**3.4 Other NSB Initiatives**

*3.4.1 Pacific Northwest Coast Integrated Management Area*

The Pacific Northwest Coast Integrated Management Area (PNCIMA) is a Large Ocean Management Area that was identified in Canada’s 2005 Oceans Action Plan to provide high-level, strategic direction with a commitment to integrated, ecosystem-based and adaptive management of marine resources and activities (PNCIMA, 2017). The plan was the result of collaborative work between DFO, First Nations, and the Province of BC and was signed in 2017. Originally, the scope of the plan was to include a spatial plan that included a network of MPAs. However, in 2011, DFO announced it was going to

withdraw from a funding agreement altering the scope of the plan. The federal government felt they could not support the agreement any longer because PNCIMA had become too heavily influenced by US funded environmental groups, (BC Local News, 2011). The decision from DFO resulted in several First Nations withdrawing from the plan (PNCIMA, 2017), undermining the original intent to have an integrated marine special plan. While this new plan no longer included spatial plans for an MPA network, it still maintained objectives to support the creation of an MPA network to address PNCIMA ecosystem-based management (EBM) (PNCIMA, 2017).

#### *3.4.2 Marine Plan Partnership*

The marine plan partnership (MaPP) initiative was established in November 2011, after the PNCIMA plan altered its scope. The partnership is a co-governed process between 16 First Nations, the same Nations involved in the NSB MPA Network process, and the Government of BC. In addition, there is a diverse number of stakeholders involved that address marine uses and values. The MaPP study area covers the same boundaries as the NSB MPA Network, divided into the same subregions. The MaPP initiative developed and is implementing marine use plans for each of the NSB subregions, using best available science and local and traditional knowledge (MaPP, n.d.). An EBM approach that encompassed First Nations perspectives on resource management and the provincial government direction in resource management was used to develop comprehensive marine use plans, that included Protection Management Zones, similar to MPAs, however, are not legally designated (MPAnetwork, n.d.b).

## Chapter 4: Results

This chapter reports the results of the research as they relate to the first two sub-questions that were posed in chapter 1. Outlined here is the current NSB MPA Network process, followed by opportunities and constraints, that were identified through semi-structure interviews, that are influencing Indigenous participation in the MPA Network process. Findings from the desktop research have helped inform and provided context to the findings from the interviews.

### 4.1 Participant profiles

Interviewees partaking in this research consisted of 12 participants with a federal government, BC provincial government or First Nations affiliation, as represented in Table 4. The First Nations participants were separated into two categories representing, those who identified as First Nations working with a First Nations band or First Nations aggregate group and non-First Nations individuals working for a First Nations band or First Nations aggregate group.

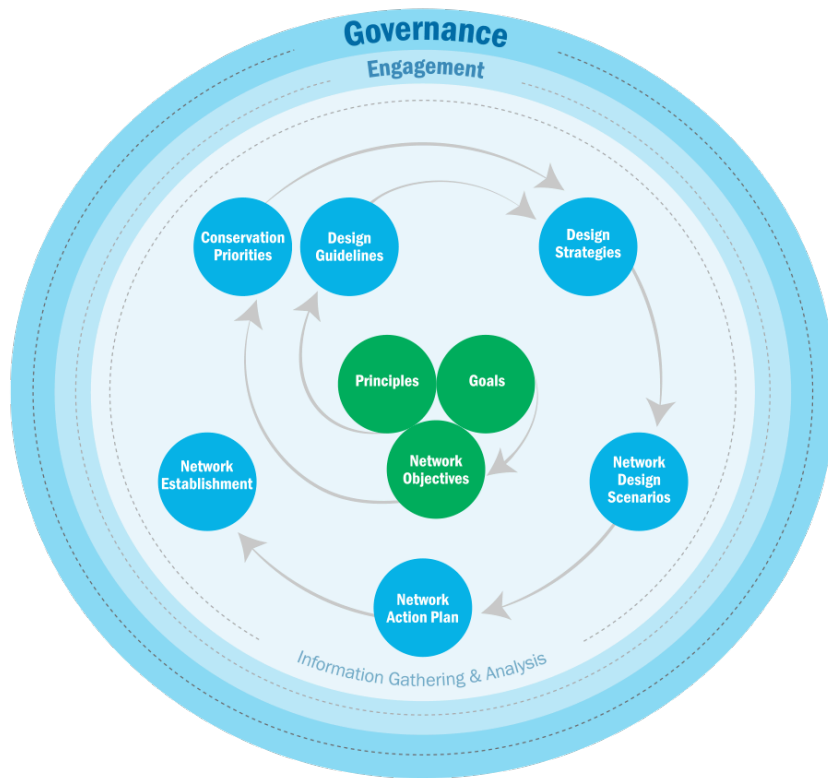
**Table 4:** Interview participant profile

Affiliation		Alphanumeric Code	Number of participants
First Nations	First Nations	FN1, FN2, FN3	3
	Non-First Nation	NFN1, NFN2...NFN5	5
Government	Federal	GF1, GF2	2
	BC Provincial	GP1, GP2	2
Total number of participants			12

### 4.2 Northern Shelf Bioregion Marine Protected Area Network Process

The NSB MPA network process is a tripartite agreement between the federal government, provincial government and First Nations, represented by 16 Nations within the planning area (DFO, 2019). The NSB MPA network planning process (Figure 5). was developed through the guidance of the *National Framework for Canada's Network of Marine Protected Area* and the *Canada-BC MPA Network Strategy* (Gale et al., 2019).



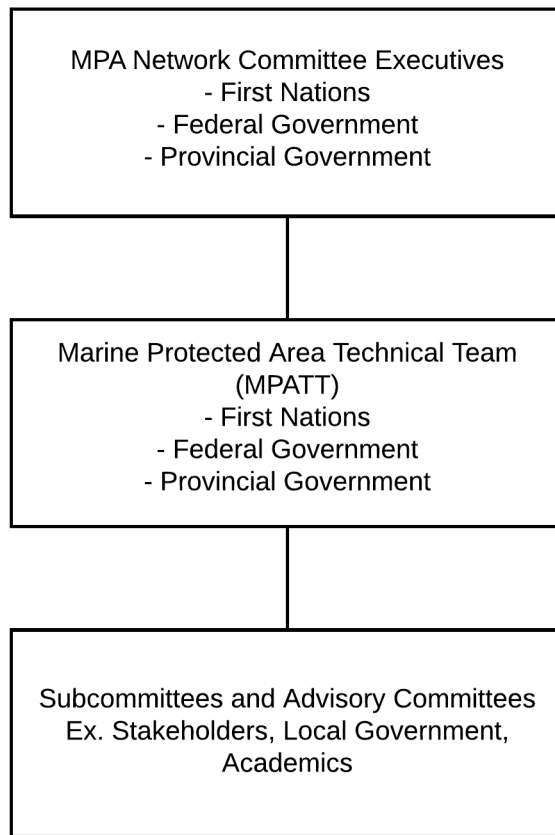


**Figure 5:** Northern Shelf Bioregion Marine Protected Area Network planning process (Gale et al., 2019)

The governance structure is led by the Marine Protected Area Technical Team (MPATT) under the direction of the MPA Network Committee (Figure 6). MPATT is responsible for developing MPA network designs that meet network goals, objectives and principles by working with stakeholders, local governments, and other experts (Chandler, King, & Boldt, 2018). MPATT is made up of members from the federal government (DFO, Parks Canada and Environment and Climate Change Canada), the Government of BC and the 16 partnered Nations represented by four aggregate groups, Central Coast Indigenous Resource Alliance, Council of the Haida Nation, Coastal First Nations Great Bear Initiative, and Nanwakolas Council (Gale et al., 2019), and individual First Nations bands. Most publications state that North Coast-Skeena First Nations Stewardship Society represents the North Coast subregion of First Nations, however it was discovered through the interviews that they are no longer a part of the process and the membered Nations (Gitga’at, Gitxaala, Haisla, Kitselas, Kitsumkalum, and Metlkatla) now represent themselves in the NSB MPA network process. The process also includes a number of

subcommittees and advisory committees that are engaged by the MPATT at various times during the process. The subcommittees and advisory committees consist of many different stakeholders including, science advisors from natural and social science backgrounds, academics, local governments, business owners, and commercial and recreational fisheries. All these committees review or provide internal process documents, like design plans, or assessments and provide feedback, information and advice back to the MPATT.

Northern Shelf Bioregion MPA Network Governance Structure



**Figure 6:** Northern Shelf Bioregion MPA Network governance structure

### 4.3 Opportunities

This section will outline the opportunities (Table 5) that were identified through the interviews that can be built on to improve Indigenous participation in the NSB MPA Network.

#### 4.3.1 Capacity Building

Capacity building was identified through the analysis as one theme that can help support the values and interests of Indigenous peoples within the NSB MPA Network process. This theme was present across all categories of participants with nine participants (75% of respondents) identifying resources such as funding and job opportunities as ways to build capacity. The following quote, offered by a respondent with a First Nations affiliation, demonstrates the opportunity that the process provides for building capacity :

...they're all part of the community. If I hire somebody, I hire that somebody because they have a certain set of skills that can then be transferred into my technicians. If I hire a consultant, that consultant has attached to them two or three technicians that are going to be looking and learning absolutely everything there is. And so, we built capacity and at the same time getting this money to do these projects allows me to send some of my technicians to get more training... [NFN1]

Not all participants had positive remarks about capacity. Seven of the participants (58.3%), four participants with a First Nation affiliation, one with a federal government affiliation and two from a provincial government affiliation, stated that capacity, specifically towards funding and personnel, was lacking and more could be done to support Indigenous involvement in the MPA Network. The following quote, offered by a respondent with a provincial government affiliation, demonstrates the importance of addressing the financial need for capacity building:

...find capacity dollars to support their involvement, whether they want to hire consultants or build capacity from within. I think there's always room to try and find money to support their involvement. It is definitely a challenge, but a place that we need to work on... [GP1]

Six of the participants (50%), all with a First Nations affiliation, spoke to self-governance as a way for Indigenous peoples to have their interests and values reflected in the MPA Network process. This is illustrated by the following quote:

...we should develop the management plans, when you should be the monitoring.  
We should be looking after these areas ourselves... [FN3]

Five of the eight (62.5%) of First Nations participants identified the Guardian Watchmen program as a way to build to capacity within their territories and support self-governance. Specifically, one respondent noted:

... under that tool there is the ability for the development of the role of First Nations in the implementation and monitoring, so we have guardian watchmen... and then the role of monitoring will fall on our own guardian watchmen and inside of the agreement there's wording there, to the effect that funding will be provided to the guardian watchmen for that role... [FN2]

In contrast one federal government participant felt that the guardian watchmen, while important for First Nations, should not fully replace DFO fisheries officers:

... we've got indigenous patrol programs and we've got monitoring programs... and it's always good if you could have those indigenous aboriginal programs set up, I think it's great... I don't think they should necessarily replace the non-indigenous equivalent, but I think it's great to have indigenous patrol program. But that doesn't mean that we shouldn't also have a DFO fishery officer patrolling the area as well... [GF2]

Additionally, self-governance was identified by one First Nations participant as something Nations are already capable of doing well, despite lack of confidence from other groups:

...they were having a difficult time releasing that and giving us that autonomy and I get the sense sometimes in meetings that they think we can't do a good job, but we proved in the past that we can do a good job protecting our resources, giving the opportunity anyway... [FN1]

Self-governance was not identified among the federal or provincial government participants. Rather they spoke more to the effect, that First Nations being a part of the process with government allows their interest and values to be reflected in the decisions being made as reflected in this quote from a respondent with a provincial government affiliation :

... it's to bring them into the process so that they can shape decision making in a way that reflects their values and their perspectives and their tradition... [GP2]

#### *4.3.2 Respect and Trust*

A common theme across all categories of participants was respect and trust. It was identified that working towards co-management as well as building relationships between Crown governments and First Nations was important to ensuring Indigenous involvement in the MPA Network process. Eleven participants (91.7%) referenced the importance of co-management in the MPA Network to improve the effectiveness of MPAs. This was exemplified in the following quote:

... First Nations, are part of the process as sort of co-leaders and in the development of products and leadership around the initiative...their involvement in the process really is as another level of government... [GP1]

Two participants, with a First Nations affiliation, suggested that without co-management of MPAs, Nations would not participate in the MPA network process:

... not only their [MPAs] effectiveness but their [MPAs] existence is predicated by co-governance and co-management, without it this [co-management] the process dies... [NFN3]

... I don't think anyone's going to sign off on any of them unless there's a co-management piece or even full Indigenous management... [NFN4]

When participants were asked about how important consultation is for the MPA Network process in involving Indigenous peoples, two First Nation participants stated they do not like using the word consultation when working with government and three First Nation participants stated that consultation is a word rarely used in meetings anymore between Crown governments and First Nations. As illustrated in the following

quote, this suggests consultation may not be the most effective tool for ensuring Indigenous involvement MPAs:

... I hardly ever use consultation in my workday anymore... So this is definitely more of like a partnership as oppose to a consultative process... [NFN5]

It was identified through the interviews that building relationships between Crown governments and First Nations is key to improving trust and enhancing Indigenous participation in the MPA Network process. Analysis of participants' responses revealed that nine of the participants (75%), six participants with a First Nations affiliations, and three with a government affiliation, agree that relationships are important to the process as typified by the following quote:

... our current governance partnership is a legacy of a long-standing relationship built over the years between BC and the federal government... We all see the same sort of partners represented in these governance structures over and over again because they've been working so long together. We know that those governance arrangements can work, they evolve as new initiatives come up. It seems to be a natural thing that we would all work together on these things... [GP2]

Despite the long-term relationships that have been built between Crown governments and partnered First Nations, one federal government participant and four participants with First Nations affiliations, still acknowledge that there are opportunities to improve the strength of these relationship and trust still needs to be built. The following two quotes provide examples of the potential for improvement:

... there's been some [First Nations] that have been burned in the past by other initiatives that are scared to trust and build those relationships, so they're apprehensive... [GF1]

... and I think you have the federal and provincial levels that have so many different pushing priorities and the nature of the election system. I don't know if Indigenous communities sometimes take these governments serious about their commitments to establish an MPA network process... [NFN4]

It is not just mistrust of First Nations towards Crown governments, there is also a level of mistrust from government towards First Nations. One federal government participant expressed concerns how food, social and ceremonial (FSC) fishing can undermine an MPA's goals and objectives and that First Nations may have a conflict of interest in the process. There is also a perception that First Nations are not distinct Nations but more of an interest group or sector group:

... it's a tripartite agreement, but only one of the parties sitting around the table actually has a fishing interest. They hold fishing commercial licenses... you can't help but feel like there's a bit of a conflict of interest... If we're going to develop no-take sites, everyone should be excluded because that is the objective is conservation... [GF2]

First Nations experience the mistrust towards them by the federal government, as was explained by one First Nations participant:

... when we talked about respect to our indigenous laws to close certain areas down and DFO agrees to them and all of sudden they allowed commercial fisherman into those areas... So DFO turnaround and said you guys know the hotspots that's why you guys want to keep them for yourself. We said no, that's not the case. Nobody is harvesting there... [FN1]

#### *4.3.3 Better Informed Decision Making*

A final opportunity that was identified through the analysis of interviews was the ability to make better informed decision regarding the designs of the MPA Network by including Indigenous knowledge and working off of past initiatives to enhance the process. All participants acknowledged the importance of Indigenous knowledge for improving MPA design and the added value it brings to their validity. The following two quotes from a respondent with First Nations affiliation and one representing the Provincial government exemplify this sentiment:

... we have our own conservation values based on our law. We have a different perspective on things like the ecosystems and how things should be managed. So there are plenty of times where the white superpower does not consider important values in their decision making and planning processes. So, absolutely that's where

the Indigenous knowledge comes into play with information about certain areas that only we possess. And so integrating that into the process is vitally important...

[FN3]

... I think it's important because we've been able, with our First Nations partners at the table to be able to incorporate cultural values into the process ensure that when we're talking about conserving areas we're conserving them for ecological reasons, but also for other reasons... traditional harvesting areas, areas near to communities that are a particular value for different cultural practices. In many cases the Nations at the table have been able to fill in gaps in our spatial understanding of areas...

[GP1]

Past initiatives have also helped to bring more informed decision making to MPA designs. The current MPA Network process has been built on previous work done through PNCIMA and MaPP and the knowledge that First Nations incorporated into these projects have guided MPA Network process. It has also helped integrate their values and interests into the designs as shared by this respondent with a First Nations affiliation:

... so the Nations already had the advantage through all these processes at this point because the Nations were ahead of the game on creating really well constructed marine use plans with really strong scientific input and a lot of interviewing of the community around traditional use, identifying important sites for management but also how much fish the Nation wanted for their dietary needs and mapping out what that might require in terms of protection... [NFN5]

However, in the MaPP process, the federal government was not involved, so while the Nations were at an advantage in terms of defining their priorities and interests, the federal government did not have all of their priorities defined, as noted by this federal government respondent:

... we didn't do a good job in DFO of getting clear on what our objectives were for the MPA network, what did we want to get out of this process. It is very clear with the Nations want to get out of this process... [GF2]



## 4.4 Constraints

This section will outline the constraints (Table 6) that were identified through the interviews that can be a potential hinderance on Indigenous participation in the NSB MPA Network.

### 4.4.1 Existing Governance Structures

Within the MPA Network process, there are certain constraints that limit Indigenous involvement in the process. Existing governance structures has been identified as one of these constraints. The current MPA Network process allows for several legislative tools for implementing MPAs in the NSB (Canada – British Columbia Marine Protected Area Network Strategy, 2014). However, it has been identified that these tools do not offer the same amount of Indigenous involvement as pointed out by one First Nation participant:

... we've chosen the Parks Act... and the reason for that is under the Parks Act there is the ability for the development of the role of First Nations in the implementation and monitoring. We've been actually working with the federal and provincial government to co-develop training necessities for our Guardian Watchmen... It isn't as clear under the Ocean Act and the Parks Act is stronger... [FN2]

When asked about the effectiveness of Indigenous protected areas (IPAs) in enhancing MPAs, six participants (50%) across all participant categories spoke to the fact that IPAs do not have any legislation to enforce them. As noted in the following quote from a First Nation participant:

... Canada makes decisions under their rules, under their designation. I cannot go out tomorrow and designate a protected area with full enforcement, full management and full sovereignty... [FN3]

Four participants, two with a First Nations affiliation, one with a federal government and one with a provincial government affiliation, discussed how IPAs could be undermined because of the various stakeholders that are governed by Canada and not the Nations. This point was highlighted by the following quote:

... having some of our core areas led by us we can just do it. You don't need Canada, or BC to be involved, but it's helpful to have them be involved because they do have a lot of stakeholders that they're responsible for that could undermine our ability to effectively establish an indigenous protected area... [NFN3]

Five participants, two with a First Nations affiliation, one with a federal government affiliation and two with a provincial government affiliation, also stated that the effectiveness of IPAs would be dependent of the objectives and goals and would have to be specific to the Nation implementing the protected area. As noted by the respondent with a First Nations affiliation:

... I think in some cases where the interest and the value are very specific to a nation that it could be a really effective way of influencing... [NFN5]

Authority was another constraint that was identified within the current governance structure that limits Indigenous involvement within the MPA Network process, with eight participants (66.7%) across all participant categories making reference to it. First Nations participants, as illustrated in the following quotes, discussed how authority should be relinquished from the government and given to First Nations:

... co-management in many ways is enforcement. First Nations guardians should have the same powers and authority as fisheries officers and conservation officers... [NFN1]

... I think it's just the government getting up to speed with allowing guardians to actually issue tickets and things like that...From what I understand, they don't have the same level of enforcement authority that say a federal fishery officer would... [NFN2]

... one of the biggest challenges that DFO and working with the federal and provincial government is that it's hard for them to relinquish authority to us... [FN1]

In contrast while federal and provincial government participants acknowledged that First Nations do not have authority when it comes to enforcing and implementing MPAs, they did not specifically discuss that it should be given. One provincial government participant

suggested that transferring authority to First Nations is too high-level for the context of the MPA Network process:

... we talk with nations regularly about enforcement and those sorts of powers that have traditionally been held by the crown. I think that it'll evolve through reconciliation and kind of broader discussions between governments and Nations and go a little bit further than the MPA network planning process... [GP1]

A final constraint that was identified surrounding the existing governance structure was the presence of siloed governance structures. Five First Nations participants identified the lack of communication between DFO branches as a source of process inefficiencies affecting their participation, this was not acknowledged by either the provincial or federal government. This is evidenced in the following two quotes:

... DFO internal schism between ocean and fisheries management, and fisheries management not being really being a part of creating the MPA network. From our perspective it seemed that when we were quite close to actually moving forward with bringing our very first draft of a network scenario to stakeholders that we've worked on with DFO, we understood that fisheries management had a representative at the table and was aware and was part of it... DFO oceans people suddenly said fisheries is freaking out and they can't go with this... [NFN5]

... DFO, I don't think had their internal house in order. Not so much between different departments, but within DFO they didn't get fully engaged with all their different branches until very recently... [NFN3]

An additional theme that was revealed through the interviews and desktop research was that the marine use plans including the MPA designs put forth by First Nations were developed independently from DFO. Each Nation developed their own marine use plan, during the MaPP process, then some of the Nations harmonized their plans with other Nations in their subregion. This was described in the following quote:

... all of the nations developed our own marine use plan and marine protected area plans... went to the neighboring nations and just compared the two whether they're

big, big differences or anything. But for the most part, very slight differences in the nations plans so all of the Nations harmonize their plans... [FN2]

#### *4.4.2 First Nations Representation Not Inclusive*

While this study focused on interviews with partnered First Nations, it was clear from the interview analysis that a constraint facing Indigenous participation in the current MPA Network process was the lack of inclusivity of all relevant First Nations in the NSB. Seven participants (58.3%), three with a First Nations affiliation and all government participants, referenced the non-partnered First Nations. One First Nation participant suggested that non-partnered First Nations risk having decision made about their territories without their consent:

... and I guess the other thing is if you're not there and other people are making those decisions for you in your own territory... that is a far worse consequence than actually being there and being part of the design... [NFN3]

All four government participants acknowledge that engagement with the non-partnered First Nations is lacking and more can be done to ensure their participation and interest are heard. This concern was expressed as highlighted in the following quote:

... with them not being part of the partnership it makes things a little more difficult because they're not at the table...we still need to make sure that they're updated and part of the process... I think we need to connect with Nations a little bit more consistently for the Nations that aren't signatory... [GF1]

Even among the partnered Nations, certain Nations felt as though their claims to the process were not equal compared to other Nations and their participation is hindered. Five participants (41.7%), four with a First Nations affiliation and one with a provincial government affiliation, relayed concerns surrounding territory overlaps and locations, as exemplified by the following two quotes:

... there are some Nations because of their community's location at this time, had been considered differently than others. I think that was the biggest downfall in this whole thing... we also would not be in the position that we're in, the amount of

time that we've spent over the last year and a half trying to fight our way into the process is incredible... [NFN2]

... it's very difficult in terms of these discussions on what areas are part of traditional territory, how much space should someone have in managing that when it might be part of their broader traditional territory, but maybe not in their backyard. It's not their core community... [NFN4]

**Table 5:** Opportunities for Indigenous peoples to incorporate their values, interests and knowledge within the current MPA process

Opportunities

		Capacity Building		Respect & Trust		More Informed Decision Making	
		Capacity	Self-governing	Co-management	Relationships	Indigenous Knowledge	Past Initiatives
First Nations	First Nations Individuals	✓✓	✓✓	✓✓✓	✓✓	✓✓✓	✓✓
	Non-First Nations	✓✓✓✓	✓✓✓✓✓	✓✓✓✓✓	✓✓✓✓	✓✓✓✓✓	✓
Government	Federal	✓		✓	✓	✓✓	
	Provincial	✓✓		✓✓	✓✓	✓✓	✓

**Table 6:** Constraints for Indigenous peoples to incorporate their values, interests and knowledge within the current MPA process

Constraints

		Existing Governance Structures			First Nations Representation Not Inclusive	
		Legislation	Authority	Silos	Non-partnered Nations	Territory claims
First Nations	First Nations Individuals	✓	✓✓	✓✓		✓
	Non-indigenous staff	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Government	Federal	✓✓	✓		✓✓	
	Provincial	✓	✓✓		✓✓	✓

## **Chapter 5: Discussion**

The aim of this research was to identify areas of opportunity and constraints within the current NSB MPA Network process to improve Indigenous participation. Interviews revealed several opportunities and constraints that contributed or hindered Indigenous participation. This chapter will discuss these opportunities and constraints and their implications on Indigenous participation in the NSB MPA Network.

### **5.1. Northern Shelf Bioregion MPA Network Governance Structure**

The process itself lends many opportunities for First Nations to participate in the development of the NSB MPA Network and has been a way to facilitate the implementation of UNDRIP. Sixteen Nations in the NSB are in a tripartite agreement with the federal and provincial governments, which allows those Nations to be a part of the decision-making process for the MPA Network. Provincial government participants described the partnered First Nations involvement in the process as co-leaders and another level of government in the development of the products and a federal government participant explained that they are the ones driving the process. This level of participation falls in line with Article 18 of UNDRIP where it states:

Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own Indigenous decision-making institutions (United Nations, 2007).

This is very different to how other non-indigenous stakeholders and advisors are engaged, where they offer their advice and input into the process but do not have any decision-making authority. While a number of First Nations in the NSB are partners in the governance structure of the MPA Network, there are 22 Nations that have traditional territories in the NSB that are not partnered. The interviews revealed while these Nations do not sit at the governance table, they are still engaged at a higher level than stakeholders and advisors. However, it was unclear as to what extent they are involved in the process. Consequences of not adequately involving Indigenous peoples in decisions regarding their territories can lead to non-compliance and hostility, as seen with conservation efforts in the Galapagos Islands (Dickinson, Rutherford, & Gunton, 2010).



Both provincial and federal government participants acknowledged that engagement with the non-partnered Nations needs to be increased and be more consistent. It was also revealed by a provincial government participant that the non-partnered Nations are engaged differently depending on whether or not they are Treaty Nations. There are very few Treaty Nations in BC and it was stated that governments will avoid planning in those areas to respect treaty rights. However this does not guarantee that planning will not occur in those areas. There is also the question of how non-partnered Nations without treaties are engaged and how planning in their territories is conducted. A federal government participant did state that no planning should take place in Nations territory without their direct involvement and those areas should be left out of the design plans until those Nations can fully participate. Again, it was unclear what the protocol is for planning MPAs in non-partnered Nations territories, and since none of the non-partnered Nations were interviewed clarification could not be ascertained. It is also important to note that because the non-partnered Nations were not interviewed it could not be determined the exact reason for them not being involved in the governance structure. Some of the provincial and federal governments offered potential explanations, citing funding and resource constraints, lack of proper engagement and the Nations themselves not wanting to join the partnership. However, without speaking directly to the Nations themselves these cannot be confirmed.

Considerations should be made by the provincial and federal governments and other First Nations when designing MPAs in First Nations territories without their consent and participation, regardless if they are part of the governance structure, as this infringes on their Treaty and inherent rights. Infringing on these rights can lead to a loss of trust and respect between the Crown governments and First Nations and can also lead to lengthy and costly court cases. This was the case in BC when the Dzawada'enuxw First Nation filed a lawsuit in January 2019 against the Canadian government for unauthorized salmon aquaculture that was established in their territories (Hamelin, 2019). The lawsuit claims that the federal government authorized fish farm license without the Nations free, prior and informed consent as stated under UNDRIP, also infringing on the Nations Indigenous rights, protected under Sec. 35 of the *Constitution Act*.

## 5.2 Opportunities

Discussed in the section are the opportunities relating to Indigenous involvement and their rights in the NSB MPA Network, they include capacity building through funding, self-governance and co-management, building respect and trust, and having more informed decision-making through Indigenous knowledge and past initiatives.

### *5.2.1. Building capacity through appropriate funding*

In Canada, financial support for MPAs has historically been provided by provincial and federal governments (Living Oceans Society, 2014). The interviews revealed capacity building to be a common theme, and while it was stated that capacity within the process can be limited and a challenge in terms of staffing resources and funding, there is opportunity to improve it. Establishing and securing long term funding opportunities is key to ensure MPAs remain functional and that First Nations within the MPA can continue to support and be a part of the process. The Moheli Marine Park in the Comoros Island was a well-funded project established in 2001. However, funding for the project was only provided during the initial stages of the project and ended a couple of years after implementation. The lack of sustainable funding now means the marine park is operating at reduced capacity and struggling to meet its conservation objectives (Poonian, Hauzer, & Ibouira, 2008). Researchers have also found that an MPA that is adequately staffed and funded is 2.9 times greater to show positive ecological effects than MPAs with inadequate capacity (Gill et. al., 2017). Understanding the importance of stable long-term funding could be an incentive for the MPA committee executives and governments to find innovated ways to secure sustainable funding options for the MPA network. Additionally, sustainable and long-term funding opportunities can also help ensure the continued involvement of First Nations in the MPAs (Ross, Grant, Robinson, Izurieta, Smyth, & Rist, 2012). One system that has increased and improved Indigenous involvement in protected areas located in their territories has been the Guardian and Watchmen programs (Trousdale & Andrews, 2016).

The Guardian and Watchmen programs are programs that span across Canada and supports Indigenous culture, stewardship, traditional knowledge, land management and oversight in their territories (Parks Canada, 2017; Ecotrust Canada, 2013). The programs

also provide training and careers opportunities to Indigenous peoples. However, establishing long-term funding that exceeds five years for these programs has been difficult for First Nations to acquire (Ecotrust, 2013). In 2017, funding was approved over a four-year time period for the Indigenous Guardians Pilot Program. While, this funding is very important to the programs, it does not provide the stable, long-term funding required to keep these programs operational.

### *5.2.2. Building capacity and respect and trust through co-management*

First Nations see the Guardian and Watchmen programs as way to self-govern their own territories. They have the authority and responsibility under traditional laws to protect their resources and culture (Ecotrust Canada, 2013). The right of First Nations to self-govern is an inherent right, recognized under section 35 of the *Constitution Act, 1982* (Act, 1982). During interviews First Nations participants state they would like the authority and ability to self-govern the MPAs in the territories and the Guardian and Watchmen programs would be good ways to achieve this. However, Crown governments did not reciprocate this notion of self-governance in the interviews, citing the challenges and conflicts that could potentially arise from activities that cross multiple jurisdictions. In this sense, there was more advocacy for co-management and co-governance.

Co-management of MPAs between the Crown governments and First Nations was identified through the interviews as a way to build respect and trust among the groups. Two First Nations participants went on to say that without some sort of co-management agreement they would not approve an MPA in their territory. From this, the importance of co-management and the participation of First Nations cannot be overlooked. Without First Nations supporting an MPA in their territory the MPA will be met with resistance and most likely not be implemented. If an MPA was implemented without First Nations consent there is the potential for legal action to be taken against Crown governments. Co-management is way to merge multiple perspectives on conservation and management and provides the ability to govern without members having to lose their own cultural identity or belief systems (Denny & Fanning, 2016). It is important to note that the tripartite agreement does not guarantee the individual MPAs will hold the same governance structures. As discussed with provincial and federal government participants during the

interviews, management of the MPAs in the NSB will be determined once decisions on the final designs have been made. Co-management agreements have been successful in Canada, with the Gwaii Haanas Agreement being one of the first agreements of its kind, signed between the government of Canada and the Haida Nation to cooperatively manage Gwaii Haanas (Coastal Funds, 2018). This agreement has often times been used as an example of how co-management can function successfully between the federal government and First Nations. What has made this agreement successful is the relationships that have been built between the federal government and the Haida Nation.

### *5.2.3 Building respect and trust through strong relationships*

Relationships were another key theme that was important to building respect and trust among the groups. The current governance partnership is a legacy from previous initiatives that have taken place in the NSB. During an interview with a provincial government participant, they identified that the relationships they have with the partnered Nations is a long-standing one that has been built over the years between them, the federal government and the Nations. They went on to say that it seems natural to work together on different initiatives. This is significant because it shows the willingness, understanding and importance of ensuring First Nations in processes like the NSB MPA Network. While relationships have been improving there are still steps that need to be made to move forward when it comes to trust. The interviews revealed that there is still a level of mistrust that needs to be address by both the Crown governments and First Nations in order to work effectively on the MPA Network. Christie & White (2007b) propose that effective MPA governance is influenced by the site's specific socio-political, historical, and socio-economical context. Given Canada's contentious history with Indigenous peoples, it is important to continue down that path of reconciliation to rebuild relationships to improve respect and trust among the members of the governance structure.

### *5.2.4 Informed Decision Making*

Interviews also revealed Indigenous knowledge and past initiatives has provided a valuable perspective to the MPA designs that would otherwise be neglected through western science advice alone. Both provincial and federal government participants

acknowledge the data gaps in their scientific knowledge of the NSB. There are many remote areas in the NSB and not all of them have been assessed. Indigenous knowledge is a way to fill in some of these gaps and provide new perspective on information already obtained (Bisong & Andrew-Essien, 2010). They provide a knowledge that has been passed down from generations and is vitally important to understanding how ecosystems work in the NSB. Additionally, Indigenous knowledge is not just a way to fill in missing information on an area. It will mean something different to every Nation, but Indigenous knowledge is deeply rooted in culture and history and is its own distinct knowledge system. Indigenous knowledge, as explained by one participant, informs that Nations values and is knowledge only they possess, so it is vitally important to have it integrated into the process. Past initiatives in the NSB have allowed the partnered First Nations to incorporate their Indigenous knowledge into marine use planning for their territories. These marine use plans were used to inform the MPA design that were submitted to the MPA Network planning process. Incorporating Indigenous knowledge into these process helps ensure that their priorities are being included the designs of the MPAs.

### **5.3 Constraints**

Despite the opportunities for First Nations in the NSB MPA Network process, the interviews did reveal some constraints that hindered their involvement. These are discussed below and include challenges with existing governance structures in terms of current legislation, the need to improve integration and the non-inclusivity of all relevant First Nations.

#### *5.3.1. Challenges with current legislation*

*The Canada - British Columbia Marine Protected Area Strategy* (2014) allows for specific legislative tool to be used for implementing MPAs, as outlined in Table 7, all of which fall under provincial or federal jurisdiction. All of these Acts have different mandates and objectives for conservation. However, the majority of them do not adequately address Indigenous involvement in the protected areas process and some do not address it all. The *Oceans Act* does have wording relating to collaboration and consultation with affected Indigenous organizations, however, the language is not strong, using words like the Minister *may* as opposed to *will*. The *Canada Nations Marine*

*Conservation Areas (NMCA) Act*, under Parks Canada, was the only act to consider the use of Indigenous traditional knowledge in the planning and management of the marine space (section 8(3)). The *NNMCA Act* also allows members of First Nations government, whose duties include law enforcement, to be designated enforcement officers by the Minister (section 19), which was not present in the *Ocean Act*.

**Table 7:** Protected area legislation in Pacific Canada

<b>Legislation</b>	<b>Type of Area</b>	<b>Department/Agency</b>
<b>Federal Government</b>		
<i>Oceans Act S.C. 1996, c.31</i>	Marine protected area	Fisheries and Oceans Canada
<i>Canada Nations Marine Conservation Areas Act S.C. 2002, c.18</i>	National marine conservation area	Parks Canada
<i>Canada National Parks Act S.C. 2000, c.32</i>	National park	Parks Canada
<i>Canada Wildlife Act R.S.C. 1985, c.W-9</i>	Marine wildlife area or National wildlife areas	Environment Canada
<i>Migratory Birds Convention Act, 1994 S.C. 1994, c.22</i>	Migratory bird sanctuary	Environment Canada
<b>Government of British Columbia</b>		
<i>Park Act [RSBC 1996] c.344 or Protected Areas of British Columbia Act [SBC 2000] c.17</i>	Park, Recreation area or Conservancy	Ministry of Environment
<i>Ecological Reserve Act [RSBC 1996] c.103 or Protected Areas of British Columbia Act [SBC 2000] c.17</i>	Ecological reserve	Ministry of Environment
<i>Environment and Land Use Act [RSBC 1996] c.117</i>	Protected area or conservation study area	Ministry of Environment
<i>Land Act [RSBC 1996] c.117</i>	Land reserve or Notation of interest	Ministry of Forests, Lands, and Natural Resource Operations
<i>Wildlife Act [RSBC 1996] c.488</i>	Wildlife management area	Ministry of Forests, Lands, and Natural Resource Operations

While the *NMCA Act* does offer First Nations more involvement in the MPAs, none of these Acts focus their conservation priorities on Indigenous values and interests; Indigenous protected areas (IPAs) are a way to offer that conservation priority. There is no definition that has been formally adopted to describe an IPAs in Canada. However, ECCC provided a description for IPAs stating they are lands and water where Indigenous peoples have the primary role in protecting and conserving ecosystems (ECCC, 2019). The IUCN also has a definition similar to what IPAs may be considered, which are called Indigenous peoples' and local communities' conserved territories and areas:

Natural and/or modified ecosystems, containing significant biodiversity values, ecological benefits and cultural values, voluntarily conserved by Indigenous peoples and local communities, through customary laws or other effective means (Kothari, Corrigan, Jonas, Neuman, & Shrumm, 2017).

There are two formally designated IPAs in Canada, the Edézhíe Protected Area located in the traditional Decho territory and Thaidene Nëné Protected Area, both are located in the Northwest Territories. These IPAs are co-managed with the federal government, with the majority of the monitoring and management responsibility lying with Nations, including patrols, research, and youth mentoring. (Sevunts, 2019; ECCC, 2018). Both of these IPAs are fairly new, only being established within the last year and half, so it is not yet feasible to determine if they have been effective in meeting their objectives. When asked about IPAs in the NSB, the interviews revealed that several factors had to be considered if an IPA would be an effective MPA tool and there were reservations about their feasibility. However, the two established IPAs in the Northwest Territories could be used a framework to inform how an IPA could be established in the NSB should the Nations choose to explore that idea. There have also been successful IPAs established in Australia through Indigenous driven initiatives, providing Indigenous peoples the opportunity to assert their own priorities and values (Rist et. al., 2019). Understanding the successes from other IPAs can help guide the process for other Nations to initiate their own protected areas vastly increasing their involvement, authority and management of their territories.

### *5.3.2. The need to improve integration*

Studies have shown the benefits of integrating user groups and processes to resource management (Knezic & Margeta, 2002). While the MPA Network process has been collaborative between the three governing bodies there has been a lack of integration of user groups and processes that has occurred throughout the process that have created conflicts and the potential to create future conflicts.

Improved communication and integration of all relevant federal government branches needs to be considered. The lack of communication between the DFO branches was identified as process inefficiency. DFO did not have all relevant branches included in the MPA Network process from the beginning. This created delays and concerns among the partnered First Nations because they were wanting to move forward with the process. Many of these Nations have multiple priorities and initiatives happening at the same time and delays caused by failures to include all relevant players in the process can be costly to a Nation. It also created fears that the federal government could pull their support from the project and Nations would be left with a similar situation to PNCIMA.

A second area where integration would be beneficial, is in the MPA design planning process. The development of the marine use plans during the MaPP process was integral for the partnered First Nations to integrate their values, interests and Indigenous knowledge into their planning area. However, the proposed MPA sites that were developed were done without the collaboration of the federal government. Interview participants from both Crown governments and First Nations revealed that while acceptance of the draft sites for the MPAs has been positive, they are cautious about how accepted the final draft the MPA Network will be received. Failure to have integration of all user groups during the initial stages of the process can create conflicts during the implementation stage of the process. This was seen in an integrated coastal zone management case study of the Bantry Bay, Ireland where conflicts arose during a project. After plans for implementation went through, many user groups came forward voicing concerns and fears. Some of these conflicts were addressed and the project went forward, but the overall issue was the lack of integration among users of the bay during the initiation stage (Hagerty, 1997).



### *5.3.3. Nation conflicts*

As discussed earlier, the representation of First Nations within the NSB MPA Network process is not inclusive, omitting some 22 non-partnered Nations that have territories that are within the NSB. However, non-inclusivity does not just lie with the non-partnered Nations. Some partnered Nations felt they had to fight harder to be considered equal partners in the process due to communities' current locations and conflicts, not just among the First Nations and the Crown government, but Nation to Nation conflicts as well. There are many areas in the NSB where territories overlap and traditional use areas for some Nations are not necessarily adjacent to the marine environment, but they still rely on it. Conflicts over strength of claims for territories between Nations is a difficult issue to resolve for Nations and can result in some Nations having their participation hindered. From the interviews, it was ascertained that these conflicts were not shared across the whole NSB but were specific to one sub-region and may warrant further investigation by the Nations to resolve.

Through this case study of the NSB MPA Network, it was revealed that there are several opportunities and constraints that can support or hinder Indigenous participation. Capacity building, improving respect and trust and developing more informed decision-making were among the opportunities identified. Existing governance structures and non-inclusivity of all relevant First Nations in the NSB were identified as constraints. The following chapter will provide recommendations on how the opportunities can be expanded upon and how the challenges can be addressed to improve Indigenous participation in the MPA process.

## Chapter 6: Recommendations and Conclusion

The following recommendations are provided to inform policymakers and decision-makers on areas that can be strengthened to support Indigenous participation, while enhancing MPA effectiveness in the MPA process.

1. Stable, long-term funding options should be secured for the Guardian and Watchmen programs, that will support existing programs, training opportunities and new programs for Nations wanting to develop their own. These programs can assist in building capacity and promote self-governance for First Nations. In addition, innovated ways of acquiring funding should be explored that do not rely solely on the federal government for support. Federal funding can be implemented relatively quickly but, funding for these programs should also be included in operational budgets of respective departments to allow for more long-term sustainability. Innovated ways to supplement any deficiencies could include the support to implement Indigenous owned businesses. This has been a successful strategy with the Athabasca Chipewyan First Nations in Alberta. They own and operate 17 businesses that have allowed them to take steps towards self-sufficiency and reinvest profits into the Nation for projects that support their people (Sterritt, 2014). This strategy is long-term but would give First Nations more opportunities to support their Guardian Watchmen programs and other project that they deem important to the Nation.
2. The province of BC and the federal government should explore amendments to legislative *Acts* that are used to designate MPAs to better reflect Indigenous values, interests and priorities, including options to implement IPAs, where deemed appropriate. This is in accordance with UNDRIP and the inherent and Treaty rights of Indigenous peoples. Implementing an IPA should be along the same timeframes as other MPA designations in Canada, since they do have similar objectives and user groups.
3. Members of the governance structure for the current MPA Network process and future MPA processes should examine mechanisms on how to improve integration, collaboration and communication between the members. This can be

accomplished through lessons learned on the current or previous processes and success from other integrated and collaborative governance structures.

Accomplishing this should be relatively short-term. Regular check ins, with governing members, during the process should be conducted to evaluate how each stage of the process is progressing and identify any inefficiencies that need to be addressed. Making regular updates, on milestones hit and decision made, to a common shared interface for user groups to access. These can be short-term solutions to improving communication and integration of the process.

4. Additional research and investigation should be completed to understand barriers, if any (as some First Nations have chosen to stay separate from the MPA Network process), that prevented the non-partnered First Nations from being involved in the MPA Network process. This could be accomplished through joint investigation between the First Nations and federal and provincial governments. Considering the number of First Nations not involved in the process this may take several years to accomplish but the information obtained will benefit future initiatives that relate to those Nations. Equal opportunity should be afforded to all relevant First Nations in the NSB MPA Network process and future MPA process as non-inclusivity can have serious implications to upholding Indigenous inherent and Treaty rights.

## **Conclusion**

The NSB MPA Network consists of a large planning area trilaterally governed by the federal government, province of BC and 16 First Nations. This research aimed to answer the question how Indigenous participation can be improved in the MPA process while enhancing MPA effectiveness and ensuring their way of life and rights are not being violated. It was originally postulated that Indigenous knowledge and more meaningful First Nations contributions were needed to accomplish this. It was found that Indigenous knowledge, while crucial and not to be discounted, was not the focus to improving Indigenous participation in the NSB MPA Network process. Instead through interviews and analysis the following were identified as mechanisms to enhance the MPA process and ensure Indigenous rights are not infringed upon: (1) Build capacity through

stable and long-term funding opportunities as well as develop co-management arrangements for MPAs. (2) Build respect and trust through co-management and strong relationships. (3) Adopted formal agreements to implement IPAs and amend current MPA legislations to better incorporate their involvement and reflect Indigenous value, interest and priorities. (4) Improve integration of user groups and processes related to MPAs. (5) Ensure all relevant First Nations have equal opportunity and capacity to participate in the MPA process.

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## Appendices

### Appendix I: Interview Questionnaires

#### INTERVIEW Questionnaire A

1. Can you briefly describe the current processes in place for the BC Northern Shelf Bioregion Network of MPAs for getting scientific, stakeholder and Indigenous input?
  - a. Can you elaborate on the Nation-to-Nation process? Participants? Time frame?
2. Who should be involved within the consultation and engagement process for the development of MPAs?
3. What is the governments role / responsibility in including Indigenous peoples within the developmental process of MPAs?
4. Do you think the current process is adequate? Why/why not?
  - a. If not, how might it be improved?
5. What do you see as the role of the First Nations within the MPA development process (i.e., consultation, decision-making, design, implementation, etc.)? Why?
6. What opportunities do you see for being a part of the MPA development process?
7. What value do you see in integrating Indigenous knowledge and values within MPA development?
8. Who in the First Nations community should be involved in the process? Why?
9. When in the MPA development process does/should consultation start? (i.e., before, middle, or post planning of MPAs)
10. What does “meaningful consultation” mean to you?
11. What challenges do you see to adequate / appropriate Indigenous engagement in the MPA development process?
12. Currently, MPAs can be established and managed by the federal government, under the Oceans Act regulations.
  - a. Do you think that the effectiveness of MPAs can be improved using a co-management approach? Why/why not?
  - b. What about the idea of an MPA that is solely developed and implemented by indigenous peoples? Do you think this would improve the effectiveness of an MPA? Why/Why not?
13. Are there any other comments that you would like to make that were not covered in the previous questions?

## INTERVIEW Questionnaire B

1. Can you briefly describe the current processes in place for the Northern Shelf Bioregion Network of MPAs for getting scientific, stakeholder and indigenous input?
  - a. Can you elaborate on the scientific advisory process? Participants? Time frame?
  - b. Can you elaborate on the stakeholder consultation process? Participants? Time frame?
  - c. Can you elaborate on the Nation-to-Nation process? Participants? Time frame?
2. Who do you think should be involved within the consultation and engagement process for the development of MPAs?
3. What do you see as the role of the First Nations within this process?
4. What is the government's role / responsibility in including indigenous peoples within the developmental process of MPAs?
5. Do you think the current process is adequate? Why/why not?
  - a. If not, how might it be improved?
6. What do you see as the benefits to involving indigenous peoples within the process?
  - a. Do you think indigenous knowledge about the AOI can be used to improve decision making regarding the development of the MPA?
7. What do you see as challenges to including indigenous peoples within the developmental process?
8. When in the MPA development does/should consultation start? (i.e., before, middle, or post planning of MPAs)
9. What do you see as adequate consultation? How do you define "meaningful consultation"?
10. Currently, MPAs can be established and managed by the federal government, under the Oceans Act regulations.
  - a. Do you think that the effectiveness of MPAs can be improved using a co-management approach? Why/why not?
  - b. What about the idea of an MPA that is solely developed and implemented by indigenous peoples? Do you think this would improve the effectiveness of an MPA? Why/Why not?
11. Are there any other comments that you would like to make that were not covered in the previous questions?



## Appendix II: Recruitment Letter

### Participant Recruitment Letter

**Subject line:** Invitation to participate in an interview for a Dalhousie University graduate project

Hello,

My name is Lindsay Richardson and I am a graduate student in the Marine Affairs Program at Dalhousie University. For my graduate project, I am conducting research on understanding the current marine protected area (MPA) process and how it is being implemented into the BC Northern Shelf Bioregion MPA network. The main focus of the study will be looking at how the process supports Indigenous rights and participation and how the process might be enhanced to ensure these principles are not being infringed upon.

I am looking to conduct interviews with First Nations, individuals who work for a First Nations organization, or anyone from another organization that has been involved in the BC Northern Shelf Bioregion MPA network project. Participation in this study is entirely voluntary and experience and expertise of the participant would greatly contribute to our understanding of this research.

Interviews will be about an hour-long and during this time, there will be a number of open-ended questions about the current process surrounding the BC Northern Shelf Bioregion network of MPAs. The interview will be scheduled based on the availability of the participant at a location of their choosing or potentially over the phone.

I will be in the Vancouver area until Aug. 23<sup>th</sup>, 2019. If there is any period of time that you would be available to meet with me, or if you are unable to meet up and would still be interested in participating over the phone and teleconference, I would be very grateful to have your participation in this study.

Thank you in advance for your time and consideration. You are welcome and encouraged to ask any questions about the intent of this study. If you are interested in participating, please notify me by email. Your participation would be greatly appreciated.

Regards,

Lindsay Richardson, B.Sc.  
Master of Marine Management Candidate Marine Affairs Program  
Dalhousie University  
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## Appendix III: Consent Form

### CONSENT FORM

**Project title:** Enhancing the Marine Protected Area (MPA) process in the BC Northern Shelf Bioregion MPA Network to improve indigenous participation

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#### Funding provided by:

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#### Introduction

We invite you to take part in a research study being conducted by me, Lindsay Richardson a Masters student at Dalhousie University as part of my Marine Management degree program. Choosing whether or not to take part in this research is entirely your choice. There will be no impact on your employment or the services you receive if you decide not to participate in the research. The information below tells you about what is involved in the research, what you will be asked to do and about any benefit, risk, inconvenience or discomfort that you might experience.

You should discuss any questions you have about this study with the lead researcher, Lindsay Richardson. Please ask as many questions as you like.

#### Purpose and Outline of the Research Study

The purpose of this study is to look at the current marine protected area (MPA) process and how it is being implemented into the Northern Shelf Bioregion MPA network. The main focus of the study will be looking at how the process supports indigenous rights and participation and how the process might be enhanced to ensure these principles are not being infringed upon. I will be conducting a series of 12-15 interviews with indigenous, federal and provincial governments, and non-government organizations representatives. With these interviews I hope

to achieve a better understanding of what the current level understanding is about the MPA process and where there may be gaps in the process that could help support indigenous rights and participation.

### **Who Can Take Part in the Research Study**

Participants will be recruited from a number of the 17 First Nations communities in partnership with the MPA Network of the Northern Shelf Bioregion and the federal government, and non- governmental representatives of fisheries or conservation organizations whose members are involved in the MPA network area may also be contacted for interviews.

### **What You Will Be Asked to Do**

You will be asked to complete a single interview either in person, over the phone or by video conferencing. Interviews will be audio-recorded to ensure accuracy in capturing the responses and are expected to take about one hour. Prior to the interview, the researcher will review the consent form and request your signature. For telephone or video conferencing interviews, an email acknowledging your consent is required.

The interview will consist of a series of semi-structured questions and is expected to take approximately one hour complete. You will have the opportunity to provide clarification of your responses for use in the study following the interview. The interview will be conducted in one visit, however, as the project develops there may be another interview requested. Phone calls and emails will be used to clarify responses if needed.

### **Possible Benefits, Risks and Discomforts**

The likelihood of any direct benefits to participating in this study is not assumed, however hopefully you will feel positively about your contribution to the study.

It is anticipated that this research will contribute to enhancing marine protected area processes and improve indigenous participation in federal government initiatives.

Risks: Every effort was made to reduce the risk of your participation in the study. Risks to participants include discomfort in answering a question, should the participant choose to answer. This risk is minimal due to the nature of the questions, which could occur in everyday conversations. There is a risk of participants feeling uncomfortable with the

meeting locations. To mitigate this risk, participants will be informed before the interview that they can choose to not answer the questions. When arranging interview locations, participants will be given option to choose the location or have the interview conducted over the phone. The responses you provide should be based on your professional expertise.

### **Compensation / Reimbursement**

There is no compensation for your participation in this study.

### **How your information will be protected:**

**Anonymity:** Anonymity cannot be guaranteed, but your name will not be identified in the research unless you provide your consent. Options for disclosure of quotes is at the discretion of the participant.

**Confidentiality:** The knowledge and information that you share will remain confidential. Participants will be assigned a randomly generated alpha-numeric identifier or pseudonym. Digital copies (files) of the interview notes and transcripts will be password protected and stored on my password protected computer. Paper versions will also have the same coding and will be stored in a locked filing cabinet. The data will be securely saved for five years after publication date and then destroyed.

### **If You Decide to Stop Participating**

You are free to leave the study at any time. If you decide to stop participating at any point in the study, you can also decide whether you want any of the information that you have contributed up to that point to be removed or if you will allow us to use that information. You can also decide for up to 4 weeks if you want us to remove your data. After that time, it will become impossible for us to remove it because it will already be analyzed.

### **How to Obtain Results**

We will provide you with a short description of group results when the study is finished. No individual results will be provided.

### **Questions**

We are happy to talk with you about any questions or concerns you may have about your participation in this research study. Please contact Lindsay Richardson at 587-897-8114, [Lindsay.richardson@dal.ca](mailto:Lindsay.richardson@dal.ca) or Lucia Fanning at 902-494-8390, [lucia.fanning@dal.ca](mailto:lucia.fanning@dal.ca) at any time with questions, comments, or concerns about the research study (if you are calling long distance, please call collect). We will also tell you if any new information comes up that could affect your decision to participate.

If you have any ethical concerns about your participation in this research, you may also contact Research Ethics, Dalhousie University at (902) 494-1462, or email: [ethics@dal.ca](mailto:ethics@dal.ca) (and reference REB file # 2019-4767).

## Signature Page

**Project Title:** Enhancing the Marine Protected Area (MPA) process in the BC Northern Shelf Bioregion MPA Network to improve Indigenous participation

**Lead Researcher:** Lindsay Richardson, B.Sc.  
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I have read the explanation about this study. I have been given the opportunity to discuss it and my questions have been answered to my satisfaction. I understand that I have been asked to take part in an interview that will occur at a location acceptable to me. I agree to take part in this study. I realize that my participation is voluntary and that I am free to withdraw from the study at any time, until 4 weeks after my interview is completed.

Please check all that apply:

- |   |                              |                             |
|---|------------------------------|-----------------------------|
| I agree that my interview may be audio-recorded                                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| I agree that I may be contacted for a follow-up interview                       | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| I agree that direct quotes from my interview may be used without identifying me | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| I would like to receive a copy of the entire study                              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date