Facilitating Mechanisms in Support of Emerging Collaborative Governance of MPAs in Québec

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ABSTRACT

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Geneviève Layton-Cartier

Marine protected area (MPA) creation is widely acknowledged as a valuable tool for marine conservation, a recognition reiterated at the eleventh Conference of the Parties of the United Nations Convention on Biological Diversity (CBD) in India (Oct. 2012). However, most countries have made limited progress in this area, including Canada, which has protected just over 1% of its Economic Exclusive Zone (EEZ). The purpose of this study was to conduct an evaluation of four MPA cases in Québec – two designated MPAs (the Parc marin du Saguenay-Saint-Laurent (PMSSL) and the Réserve aquatique projetée de Manicouagan (RAPM)) and two proposed MPAs (the Îles-de-la-Madeleine[1] and a project initiated by the Cree Nation of Wemindji (Tawich)) – focused on facilitating mechanisms availed of during the pre-establishment stages that support emerging collaborative governance (co-governance) arrangements. In Québec, these arrangements include both federal and provincial government involvement. Twenty-two semi-structured interviews were conducted with representatives of key stakeholders identified at Québec's first MPA Symposium (June 2010) and then coded with the qualitative data analysis software (QDAS), NVivo 10. Facilitating mechanisms were identified, including the need for: aboriginal and local community engagement; bridging organizations and leadership; traditional and local ecological knowledge (TEK and LEK); public education-awareness; and transparent communications. These are consistent with findings in the literature on collaborative management (co-management) of natural resources as well as the limited literature on MPA governance. The research is intended to support the establishment of MPAs by providing insights from a diversity of stakeholder perspectives based on past experiences and current circumstances.

[1] The French designation of the Réserve aquatique projetée de Manicouagan and Îles-de-la-Madeleine project is used by all governmental agencies while both the French and English names of the Parc marin du Saguenay-Saint-Laurent are widely accepted. However, I have made a linguistic choice to name the three MPA initiatives located in the St. Lawrence River/Gulf in French for consistency.

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AANDC: Aboriginal Affairs and Northern Development Canada
APPÎM: Association des pêcheurs propriétaires des Îles-de-la-Madeleine
ATA: Applied Thematic Analysis
CBC: Canadian Broadcasting Corporation
CBD: Convention on Biological Diversity
CEA: Canadian Ecology Advocates
CERMIM: Centre de recherche sur les milieux insulaires et maritimes (UQAR)
CNG: Cree Nation Government
CNQA: Cree-Naskapi of Québec Act
COP: Conference of the Parties
COSEWIC: Committee on the Status of Endangered Wildlife in Canada
CPAWS: Canadian Parks and Wilderness Society
CPR: Common Pool Resources
CRA: Cree Regional Authority
CTA: Cree Trappers Association
CURA: Community-University Research Alliances
DFO: Department of Fisheries and Oceans Canada
EEZ: Economic Exclusive Zone
EMRLCA: Eeyou Marine Region Land Claims Agreement
EMRWB: Eeyou Marine Region Wildlife Board
ENGO: Environmental non-governmental organization
GCC: Grand Council of the Cree (Eeyou Istchee)
ICCA: Indigenous and Community Conservation Area
IOM: Integrated Oceans Management
IPA: Indigenous Protected Area
IPSO: International Programme on the State of the Ocean
IUCN: International Union for Conservation of Nature
JBNQA: James Bay and Northern Québec Agreement
LEK: Local Ecological Knowledge
LOMA: Large Ocean Management Area (DFO)
MAPAQ: Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec
MDDEFP: Ministère du Développement durable, de l'Environnement, de la Faune et des Parcs du Québec
MDDELCC: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques du Québec
MDDEP: Ministère du Développement durable, de l'Environnement et des Parcs du Québec
MERN: Ministère de l'Énergie et des Ressources naturelles du Québec
MPA: Marine Protected Area
MPAG: Marine Protected Area Governance Framework

NMCA: National Marine Conservation Area
NSERC: Natural Sciences and Engineering Research Council of Canada
PA: Protected Area
PLQ: Parti libéral du Québec
PMSSL: Parc marin du Saguenay-Saint-Laurent
PNPO: Parc Nature Pointe-aux-Outardes
QCBS: Québec Centre for Biodiversity Science
QDAS: Qualitative data analysis software
RAPM: Réserve aquatique projetée de Manicouagan
RCM: Regional County Municipality
RSC: Royal Society of Canada
SAIC: Secrétariat aux affaires intergouvernementales canadiennes
SARA: Species at Risk Act
SCBD: Secretariat of the Convention on Biological Diversity
SNAP: Société pour la nature et les parcs du Canada – Section Québec
SSHRC: Social Sciences and Humanities Research Council of Canada
TEK: Traditional Ecological Knowledge
UNCED: United Nations Conference on Environment and Development
UNDP: United Nations Development Programme
UNESCO: United Nations Educational, Scientific and Cultural Organization
UQAC: Université du Québec à Chicoutimi
UQAR: Université du Québec à Rimouski
WCPA: World Commission on Protected Areas
WPAP: Wemindji Protected Areas Partnership
WPC: World Parks Congress
WSSD: World Summit on Sustainable Development
ZIP: Zone d'intervention prioritaire (area of prime concern)

Chapter 1. Introduction

1.1. Background

The oceans support tremendous biodiversity mainly in shallower waters adjacent to coasts, and contain over 95% of the Earth's water (CPAWS, 2014). Unfortunately, the state of oceans and seas has been deteriorating at an increasing rate due to the cumulative impacts of human activities (Earle, 1996; IPSO/IUCN, 2013). The current threats to marine ecosystems and species are numerous and include unsustainable fishing, pollution, coastal development, oil and gas exploration and extraction, climate change, unsustainable aquaculture and invasive species introduction (IPSO/IUCN, 2013). Strategies on multiple fronts are needed to address these threats since management intervention must occur at ecologically relevant scales. In marine environments, these include MPAs, marine spatial planning, integrated coastal/ocean management and ecosystem-based management (Toropova et al., 2010).

In trying to protect certain marine species and the habitats that support them from multiple threats, the creation of MPAs and MPA networks have been shown to be effective (e.g. Lubchenco et al., 2003; Christie, 2011). One of the most recent studies on the topic (Edgar et al., 2014) investigated 87 MPAs worldwide and found that conservation benefits augment exponentially as the following five vital conditions are met: no less than 100 km^2 in size; isolated by sand/deep water; no fishing permitted (no-take); established for at least ten years; and effectively enforced .

The most widely accepted and used definitions of an MPA and MPA network are as follows:

> MPA: A clearly defined geographical space recognized, dedicated, and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (IUCN-WCPA, 2008, p. 3).

> MPA Network: A collection of individual marine protected areas operating cooperatively and synergistically, at various spatial scales, and with a range of protection levels, to fulfill ecological aims more effectively and comprehensively than individual sites could alone. The network will also display social and economic benefits, though the latter may only become fully developed over long time frames as ecosystems recover (WCPA/IUCN, 2007, p. 3).

Over the last fifteen years, researchers have begun to address the human dimensions (i.e. social, economic, cultural and economic) of MPAs, recognizing that these are as important as ecological criteria to plan and manage MPAs effectively (Davis, 2002; Mascia, 2004; Pomeroy et al., 2007; Charles & Wilson, 2009). As Mascia (2004) explains, MPAs "are not only the product of social processes, but they also have social ramifications" (p. 165). At the same time, more attention has been devoted to considerations of MPA governance, including the identification of best practices for governance (e.g. Hogg et al., 2013; McCay & Jones, 2011). In its latest report on the governance of PAs, the International Union for Conservation of Nature (IUCN) identifies five broad *Principles for the Good Governance of Protected Areas*: 1) Legitimacy/Voice; 2) Direction; 3) Performance; 4) Accountability; and 5) Fairness/Rights (Borrini-Feyerabend et al., 2013). MPA governance best practices were included in the Canadian Parks and Wilderness Society's (CPAWS) *Science-based Guidelines for Marine Protected Areas and MPA Networks in Canada* (Jessen et al., 2011), a lobby document published to apply pressure on the federal government. These guidelines were produced by the CPAWS and 14 university researchers, including ecologists and social scientists.

This research builds on the premise that emerging co-governance arrangements bringing in all rightsholders/stakeholders[2] and taking into account local contexts are necessary to ensure the acceptability and effectiveness of MPA planning and management (e.g. Charles and Wilson, 2009). The following quote conveys the increasing recognition of rightsholder/stakeholder roles in the field of conservation:

> Moving beyond simple "consultation" and engaging such actors in decision-making can broaden social support for PAs and thus improve management. Similarly, the perspectives of diverse rightsholders and stakeholders can bring new information to light about governance issues, problems and opportunities. And the social actors directly engaged in such assessment and evaluation processes are likely to develop a stronger commitment to conservation, making governance changes and other necessary action easier to achieve (Chambers, 1992; Jackson and Ingles, 1998; Margoluis and Salafsky, 1998; Ostrom, 1990; Steinmetz, 2000 cited in Borrini-Feyerabend et al., 2013, p. 68).

In other words, higher levels of rightsholder/stakeholder engagement are desirable and can lead to co-management schemes (e.g. Carlsson & Berkes, 2005; Ferse et al., 2010). These can be

[2] As defined by Borrini-Feyerabend et al. (2013) in the context of PAs, rightsholders are "actors socially endowed with legal or customary rights with respect to land, water and natural resources" (p. 15), and stakeholders "possess direct or indirect interests and concerns about those, but do not necessarily enjoy a legally or socially recognised entitlement to them" (p. 15).

embraced by indigenous/local communities while having conservation benefits if implemented fairly and with adequate resources (e.g. SCBD, 2010; Borrini-Feyerabend et al., 2013).

As such, there has been an increasing acknowledgement over recent years of the importance of diversified governance arrangements, which have evolved over time (e.g. Borrini-Feyerabend et al., 2013). Starting in the 1990s, the role of governments in MPA development began to shift from top-down approaches to include other stakeholders in discussions when taking decisions (e.g.: Paavola et al., 2009; Mulrennan et al., 2012). The IUCN has taken the lead to declare and promote the expansion of PA governance arrangements and many international environmental bodies and some governments now abide with this view. For example, the most recent IUCN *Guidelines for Applying Protected Areas Management Categories* (Dudley, 2008) include several hybrid governance arrangements. Furthermore, the 'Communities and Equity Crosscutting Theme' at the 2003 IUCN World Parks Congress in Durban, South Africa, was dedicated to extending the view that conservation projects will be more rewarding for everyone when the importance of equity and local participation are truly recognized (Brosius, 2004). The Congress also endorsed recommendations that identify and acknowledge several governance types for PAs (Borrini-Feyerabend et al., 2004, 2006).

Many international policies and conventions now recognize indigenous peoples' rights and the value of traditional ecological knowledge (TEK) (Craig and Nava, 1995; Schrijver, 1997; Mulrennan and Scott, 2010; Mulrennan et al., 2012; Mulrennan, 2013). Of note is the formal recognition given to Indigenous Peoples' and Community Conserved Areas and Territories (ICCAs) at the IUCN World Parks Congress in 2003 (ICCA, n.d.).

1.1.1. MPAs and MPA Networks: Targets and Current Status

Over the past decade, an increase in the number of MPAs designated by various countries occurred in response to PA targets set by the World Summit on Sustainable Development (WSSD) and the CBD, the size of the largest MPAs has also increased[3] (>100,000 km^2) (De Santo, 2013). Country leaders at the 2002 Johannesburg WSSD supported in principle the creation of representative MPA networks across the world by 2012 (UNESCO, 2002). In addition, signatory parties at the 2004 CBD Conference of the Parties (COP) in Kuala Lumpur,

[3] Examples: New Caledonia, France (1.4 million km^2); South Georgia and South Sandwich Islands, UK/Argentina, (1.07 million km^2); Coral Sea, Australia (990,000 km^2); Chagos Archipelago, UK (640,000 km^2) (summarized in De Santo, 2013).

Malaysia, set a goal to create "comprehensive, effectively managed and ecologically representative" MPA networks by 2012 (CBD 2004, Decision VII/28, p. 339). At the 2006 CBD COP meeting in Curitiba, Brazil, it was decided to specify percent targets that would see "at least 10% of each of the world's marine and coastal ecological regions effectively conserved" (CBD, 2006, p. 153). This goal, however, was not met.

Consequently, it was decided at the 2010 CBD COP in Nagoya, Japan, to extend the target to 2020 and set specific milestones (CBD, 2010), a position reiterated by the parties at the 2012 CBD COP in Hyderabad, India (CBD, 2012). As such, the *Aichi Biodiversity Target 11 of the CBD Strategic Plan 2011-2020* states that "by 2020, at least 17% of terrestrial and inland water, and 10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are [to be] conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape" (CBD, 2012).

Canada was one of the first signatories of the CBD, which was opened for signature at the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil. However, it has consistently failed to create comprehensive MPA networks since the CBD parties first agreed to this goal at the COP in 2004. Since 1992, Canada has also made other international and national commitments to create networks of MPAs, which it has failed to meet; these are comprehensively discussed in CPAWS (2008). Even though Canada is the country with the longest coastline in the world and surrounded by three oceans, it has protected only ~1.3% of its ocean estate[4] (or 61,000 km^2) and greatly lags behind many other developed nations (DFO, 2014b; CPAWS, 2014). The following five countries have the highest MPA percent coverage of their ocean estate: 1) Greenland – 36.7%; 2) Australia – 33.2%; 3) United States – 30.4%; 4) New Zealand – 16.6%; and 5) Russia – 11.6% (CPAWS, 2014). Since Australia[5] has a similar

[4] Canada's ocean estate includes its internal waters, its territorial sea (to 12 nautical miles (nm)) its EEZ (from 12nm to 200 nm) (CPAWS, 2014).

[5] As described in by Nursey-Bray (2011), "there is a matrix of overlapping State and Federal responsibilities when it comes to managing the marine estate in Australia. For example, unless exempt by law, State and Northern Territory governments have primary carriage for managing their marine environments up to three nautical miles out from the territorial sea baseline (which is by and large the low-water mark, but in some areas is up to 60 nautical miles offshore). The Commonwealth Government then has management responsibility from the State or Territory limit to the edge of the marine jurisdiction at the limit of the Australian Exclusive Economic Zone (EEZ), 200 nautical miles out to sea" (p. 672).

parliamentary government to Canada and established a marine bioregional planning program in 2007 (National Representative System of Marine Protected Areas), its MPA establishment progress provides a good comparative example for Canada. Australia's federal, state and territorial governments made a commitment in 1998 to establish a national representative system of MPAs by 2012. In those fourteen years, Australia created a network of MPAs covering 33% of its ocean estate (or 3.1 million km^2) including 17% under no-take zones (CPAWS, 2014).

There are three federal agencies that have jurisdiction to designate the protection of marine/coastal ecosystems within Canada's ocean estate: the Department of Fisheries and Oceans Canada (DFO) through the *Oceans Act* (Government of Canada, 1996) termed Marine Protected Areas; Environment Canada through the *Canada Wildlife Act* (Government of Canada, 1985) termed National Wildlife Areas and Marine Wildlife Areas and through the *Migratory Bird Convention Act* (Government of Canada, 1994) termed Migratory Bird Sanctuaries; and Parks Canada through the *National Marine Conservation Areas Act* (*NMCA Act*) (Government of Canada, 2002a) termed National Marine Conservation Areas (NMCAs) (CPAWS, 2008; Jessen, 2011, RSC, 2012). It is the Minister of Fisheries and Oceans (as stated in the *Oceans Act* (Government of Canada, 1996)) that is tasked to lead and coordinate the development and implementation of a national network of MPAs on behalf of the Government of Canada (DFO, 2005). As such, DFO coordinated the 2011 initiative to have federal, territorial and provincial governments agree to the *National Framework for Canada's Network of Marine Protected Areas* (DFO, 2011a), as well as the scientific conceptualization of marine bioregions covering all of Canada's ocean estate (CPAWS, 2014). Here, I refer the reader to existing comprehensive, historical and/or analytical accounts of Canada's MPA regulatory and policy context: Guénette and Alder, 2007; CPAWS, 2008; Jessen et al., 2011; RSC, 2012; CPAWS, 2014.

Parks Canada made many mistakes in the past with the dispossession of indigenous communities when conducting top-down conservation initiatives. Nonetheless, Canada's federal and provincial governments have become increasingly open to develop PA co-management arrangements with indigenous peoples over the past 40 years (Canadian Parks Council, 2011). There has been a vital contribution of indigenous peoples in countries like Canada and

Australia[6]. A recent MPA example is the 2010 establishment of the Gwaii Haanas National Marine Conservation Area (NMCA) Reserve, which surrounds the terrestrial Gwaii Haanas National Park Reserve, and followed prolonged negotiations between the Haida Nation Council, the Government of Canada and the Government of British Columbia. The Archipelago Management Board now governs both the land and sea components of Gwaii Hanaas with equal representation from the Haida Nation Council and the Government of Canada (Haida Nation, n.d.; Parks Canada, n.d.). There are other MPA initiatives that have been proposed and/or established in northern Canada including: the Lancaster Sound (Tallurutiup Tariunga) NMCA project; the Anguniaqvia Niqiqyuam MPA Area of Interest (DFO); and the established Tarium Niryutait MPA[7] (DFO).

At the provincial level, Québec initially committed to the CBD in 1996 by putting in place a strategy and action plan to implement its objectives (Ministère de l'Environnement, 1999). More recently, Québec made the commitment to increase MPA coverage to 10% by 2015 (SNAP, 2011) exceeding the 2020 deadline set at the CBD COP in Nagoya, Japan (CBD, 2010). During the 2014 Québec election campaign (March 5th-April 7th), candidates of the elected Liberal Party of Québec stated the commitment of their party to maintain the 2015 target (PLQ, 2014). Furthermore, the most recent St. Lawrence Action Plan agreement (2011-2026), first launched collaboratively in 1988 by the governments of Québec and Canada to enable the sustainable development of the St. Lawrence River, calls for the establishment of three MPAs by 2026 (Canada-Québec, 2013). Nevertheless, only 1.3% of the province's marine territory is legally protected as stated in 2013 by Mr. Yves-François Blanchet, the former Ministre du Développement durable, de l'Environnement, de la Faune et des Parcs du Québec (MDDEFP, 2013). This agency is currently named the Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques du Québec[8] (MDDELCC) since the Liberal Party of Québec was elected in April 2014. There are currently two established

[6] At the country level, Australia has taken the lead with the designation of more than 30% of its reserve system as Indigenous Protected Areas (IPAs) (CPAWS, 2014). Furthermore, the first sea country IPA was formally established in Darwin, Australia, in May 2013.

[7] For more information, please see DFO's MPA website (http://www.dfo-mpo.gc.ca/oceans/marineareas-zonesmarines/mpa-zpm/index-eng.htm) and Parks Canada's NMCA website (http://www.pc.gc.ca/progs/amnc-nmca/index.aspx).

[8] The MDDELCC has been named differently over the years when new political party have been elected at the provincial level (see http://www.assnat.qc.ca/fr/patrimoine/ministitulaires2.html#environnement). However, I've chosen to use MDDELCC hereafter when referring to this ministry to simplify the text.

MPAs that extend into the marine waters of Québec past the low tide mark: the PMSSL and the RAPM.

The focus on the limited progress in MPA establishment in Québec should be judged in the context of significant progress in the planning and creation of terrestrial PAs within Québec over the last decade. As of March 2014, the government of Québec had succeeded in designating over 9% of its territory as PAs (MDDELCC, 2014) and relations with indigenous peoples have improved over time. For example, the adoption of the *Natural Heritage Conservation Act* (Gouvernement du Québec, 2002) provided for local and regional participation in defining the vision for conservation, planning for new PAs and eventually managing these territories (MDDEP, 2003).

1.2. Research Statement

The focus of this research project is timely given the lack of progress of Québec-based MPA projects over the last 15 years, the limited progress Canada has made on the establishment of a network of MPAs despite its commitment to do so under the CBD and numerous other international agreements and international acknowledgement of the crucial role of local/indigenous communities in PA planning and management (e.g. Toropova et al., 2010). The overarching research objective is to contribute to the understanding of the limited progress made in advancing MPAs in Québec through an examination of facilitating mechanisms that support emerging co-governance arrangements developed during the pre-establishment stages in four MPA cases. These arrangements include both federal and provincial government involvement.

To achieve this research objective, a qualitative study was undertaken of four MPAs cases in Québec – two designated MPAs (the PMSSL and the RAPM) and two proposed MPAs (the Îles-de-la-Madeleine federal-provincial project and a project initiated by the Cree Nation of Wemindji (Tawich)). At the time my research proposal was developed (spring 2010), there were only these four MPA cases with ongoing discussions in the province. DFO's St. Lawrence Estuary Area of Interest was widely regarded as paused. Since then, at least one more project has been identified and pursued by a federal agency (DFO's proposed American Bank MPA Area of Interest, off the eastern coast of the Gaspé Peninsula).

The pre-establishment stages of the PMSSL and the RAPM lasted 15 and 18 years respectively while the other two cases were both initiated ten years ago and have yet to be

created. There is much to be learned from the experience of these MPA pre-establishment negotiations. This study attempts to gather information from the on-the-ground perspective of various stakeholders. Its contribution is especially important since there is almost nothing written about the Québec context because of the lack of transparency and the sensitivity of the topic.

Semi-structured interviews were conducted with a diversity of stakeholders (past and current) for each MPA case to ensure a more balanced and equitable evaluation. These interviews identified facilitating mechanisms available to stakeholders. I was able to gain access to key informants through my involvement with the Wemindji Protected Areas Partnership and the organization of the 2010 Symposium on MPAs in Québec.

Ultimately, it is hoped that this research will advise and guide MPA policy in Québec and Canada to support more effective emerging governance arrangements during MPA planning based on past experiences. This builds on the argument made by Chuenpagdee et al. (2013) that MPA failures worldwide are mostly attributed to the process leading up to establishment when a project is envisioned, shared and discussed among stakeholders, and that further research is required to better comprehend what conditions allow for effective and equitable planning.

1.2.1. Research Context

My research was conducted as a contribution of the Wemindji Protected Areas Partnership (WPAP). This research team, funded by the former Community-University Research Alliance (CURA) and Northern Aboriginal Research programs of the Social Sciences and Humanities Research Council of Canada (SSHRC), originated as a partnership between an interdisciplinary team of researchers from McGill University, Concordia University and the University of Manitoba, the Cree Nation of Wemindji on the coast of James Bay in Northern Québec, the Grand Council of the Crees of Eeyou Istchee (GCC), the Cree Trappers Association (CTA), Parks Canada, the MDDELCC, and the Société pour la nature et les parcs du Canada (SNAP[9]). The main goal of this research partnership was to establish a network of PAs anchored in Cree knowledge and institutions for land and sea management, to achieve the combined goals of regional sustainability, biodiversity protection, and cultural continuity. The Tawich MPA project was initiated by the WPAP as an outcome of discussions surrounding the

[9] The SNAP is the Québec division of the Canadian Parks and Wilderness Society, a Canadian environmental non-governmental organization centrally involved in marine protection.

Paakumshumwaau-Maatuuskaau Réserve de Biodiversité Projetée, which was created in May 2008 as a MDDELCC designation (Mulrennan et al., 2012). I joined the WPAP team when I became a M.Sc. student under the supervision of Dr. Monica Mulrennan (Dept. of Geography, Planning and Environment, Concordia University) in September 2009. As part of my preparation for this study, I also worked as a science camp animator for the Cree community of Wemindji (July 2009), which was partly run by members of the WPAP.

A former Director of the SNAP approached members of the WPAP in mid-2008 to discuss opportunities for the SNAP to support the proposed Tawich MPA. At certain times, the SNAP was an important interlocutor between some of the researchers and the government agencies involved, which helped to keep the project on the latter's radar. This was especially true when SNAP assisted the researchers and the local and regional Cree leadership by convening a meeting in November 2008 with senior policy representatives from Québec and federal protected areas agencies. One of my thesis committee members, Sylvain Archambault, is a senior scientist with the SNAP in this effort. Furthermore, the WPAP and the SNAP jointly organized the first Symposium on MPAs in Québec, which took place in Rimouski on June 10th-11th, 2010. This gathering brought together numerous environmental non-governmental organizations (ENGOs), governmental agencies and academics, many of whom shared frustrations with the limited progress on MPAs (see Appendix A for the Symposium Program). I actively contributed to the organization of the Symposium as the primary contact between the two groups and through my participation on the Advisory Committee, which consisted of representatives from governmental agencies, the SNAP and the WPAP.

My involvement with the WPAP and organization of the MPA Symposium helped position and prepare me for my research documenting the perspectives of MPA stakeholders in Québec. In addition, my background training and interests helped in my approach to this study. In summer 2007, I received a Natural Sciences and Engineering Research Council of Canada (NSERC) Undergraduate Student Research Award to work as a research assistant for Natalie Ban, a doctoral student of Dr. Amanda Vincent (Project Seahorse) comparing community-based and science-based approaches to the establishment of MPAs. My internship with the Nature Conservancy of Canada - Québec Region (Sept. 2008 to June 2009) deepened my knowledge of PA processes and possibilities for local community stewardship. I also learned about the goals and strategies of this organization, including how it interacts with governmental institutions and

other ENGOs. This enhanced the earlier experience I gained when volunteering for the Marine Conservation Program of the David Suzuki Foundation in Vancouver (2007).

Over the last three years, preliminary results from this research have been presented on four occasions: the International Coastal Zone Canada Conference (Rimouski, June 2012); the Annual Meetings of the Canadian Association of Geographers (Waterloo, May 2012); the Québec Centre for Biodiversity Science (QCBS) Symposium (Montréal, December 2011); and the second International Marine Conservation Congress (Victoria, May 2011). I also conducted two six-month internships during my program; the first at the Secretariat of the CBD (Montréal, January – June 2011) and the second at the Great Lakes and St. Lawrence Commission (Michigan, September 2012 – March 2013). As a student working with Dr. Mulrennan, I am also a member of the QCBS.

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1.3. Thesis Structure

The structure of this thesis is based on the conventional dissertation model. Following the Introduction given in Chapter 1, Chapter 2 provides an account of the marine jurisdictional and MPA policy contexts in Québec. The research's conceptual framework and a review of the MPA governance literature are presented in Chapter 3. Chapter 4 describes the research methods, Chapter 5 presents an account of the four MPA cases, and Chapter 6 describes the research findings. Chapter 7 discusses the five most commonly mentioned facilitating mechanisms by the informants in relation to the literature and conceptualizes five MPA pre-establishment steps. Finally, Chapter 8 concludes by outlining some of the broader implications of this research as well as five policy recommendations to support the emergence of co-governance arrangements during MPA pre-establishment stages.

Chapter 2. Marine Protected Area Context in Québec

This chapter provides a general overview of the marine jurisdictional context (section 2.1) and the MPA policy context (section 2.2) in Québec, both of which are central considerations of my investigation of the MPA pre-establishment challenges encountered in this Canadian province. Since three of my four cases are located in the St. Lawrence Estuary/Gulf and one in James Bay, these areas are of particular focus in the following two sections. Section 2.2 includes a brief overview of the endangered species laws at both the federal and Québec level which can potentially be used as governance tools in MPA initiatives.

2.1. Marine Jurisdictional Context

The coastal/marine jurisdictional context in Québec is legally very complex. It is significantly more complex than in other Canadian provinces because the government of Québec has not endorsed Canada's *Ocean's Act* (Government of Canada, 1996), which identifies the boundary where the St- Lawrence Gulf seabed becomes federal jurisdiction, or the *NMCA Act* (Government of Canada, 2002a) that describes Parks Canada's strategy to create marine parks along the coasts of Canadian provinces and territories (SNAP, 2010). There are other historical jurisdictional disagreements between the Québec and federal governments pertaining to the St. Lawrence Estuary and Gulf (Noel, 1994), while the northern Québec coastline and offshore waters are divided into areas under more than one jurisdiction (Mulrennan & Scott, 2000).

2.1.1. Marine Jurisdictional Context of the St. Lawrence Estuary and Gulf

The jurisdictional context of the St. Lawrence Estuary and Gulf are particularly complex (Noel, 1994). One of the few points agreed on is Québec's jurisdiction on intertidal areas down to the low tide mark. However, Québec does not accept the same seabed ownership boundary as the federal government; instead there is federal-provincial jurisdictional overlapping in the Québec section of the St. Lawrence Gulf.

The Canadian Constitution guarantees to the provinces all rights to resources existing at the time of Confederation in 1763 while Québec recognizes the marine interprovincial boundary founded in 1964 (SNAP, 2010). The main implication of this is jurisdictional disagreement over the ownership of the seabed of the Québec portion of the St. Lawrence Gulf and the potential hydrocarbon resources it contains (SNAP, 2010). The main stake is the Old Harry petroleum

deposit located 80 km offshore of the Îles-de-la-Madeleine (e.g. SNAP, 2010). Jurisdictional disagreements have slowed the advancement of MPA creation in the St. Lawrence starting with the planning of the PMSSL, which was stalled at times due to federal-provincial jurisdictional wrangling (Octeau, 1999). In 2006, the multi-agency Bilateral Group on MPAs (Bilateral Group hereafter) was put in place to address these jurisdictional issues (SNAP, 2010). However, efforts to create a functional coordinated approach to help override jurisdictional conflicts when planning an MPA were unsuccessful (SNAP, 2010).

The maritime estuary and the northwestern Gulf of St. Lawrence were ruled out from hydrocarbon exploration/extraction by the government of Québec in June 2011 while a strategic environmental assessment for that area (approximately 140,000 km^2) was being conducted by the MERN (n.d.). In March 2011, the two levels of government finalized the *Canada-Québec Accord on Offshore Resources* (Accord hereafter), which stresses the joint development of hydrocarbon potential in the St. Lawrence Gulf as well as Québec's constitutional status in the St. Lawrence Gulf (MERN, n.d.). Before this agreement, the government of Québec was very hesitant to negotiate with the federal government on potential MPA projects in the St. Lawrence Estuary and Gulf due to implications for oil and gas development (SNAP, 2010). Later in 2011, the maritime estuary and the northwestern Gulf of St. Lawrence were put under a moratorium from offshore hydrocarbon exploration/extraction by the government of Québec. However, the current provincial government plans to negotiate the conditions for hydrocarbon development in the St. Lawrence Gulf (i.e. the Old Harry petroleum deposit) with its federal counterparts through mirroring laws (Gouvernement du Québec, 2014).

Since the signing of the Accord, it seems bilateral discussions pertaining to specific MPA projects have led to some advancement on the MPA front. The launch of a joint feasibility study for the Îles-de-la-Madeleine MPA project, announced in December 2011 by Parks Canada and the MDDELCC, is one outcome. Furthermore, the MDDELCC designated the foreshore of Manicouagan Peninsula as well as the adjacent waters (to a 300-meter depth) (Gouvernement du Québec, 2013) under its existing aquatic reserve PA designation. The public announcement for the RAPM was made in August 2013 (MDDEFP, 2013).

2.1.2. Marine Jurisdictional Context of Eastern James Bay

The east coast of James Bay is the traditional homeland of the Crees who are mainly hunting people but retain strong interests and rights in the offshore (Mulrennan & Scott, 2000; Mulrennan et al., 2012). According to Mulrennan and Scott (2000) their "land-and-sea tenure system is defined by numerous multi-family hunting territories, with, hunting effort of each group under leadership of a senior 'hunting boss', or territory steward" (p. 694).

The Cree of northern Québec were the first Aboriginal group in Canada to use self-government within their land claim negotiations (AANDC, n.d.) through the 1975 *James Bay and Northern Québec Agreement* (JBNQA), which has provisions for Cree uses of the land but does not extend into James/Hudson Bays past the low tide mark (Mulrennan & Scott, 2000). As such, the offshore marine waters and seabed starting at the low-tide mark are of federal jurisdiction (Mulrennan & Scott, 2000). "In 1984, pursuant to the JBNQA, the Government of Canada proclaimed the *Cree-Naskapi (of Quebec) Act*, which recognizes local governance powers and set up a system of land management for the Crees of Eeyou Istchee" (AANDC, n.d.) under the newly formed GCC. In 2007, the *Agreement Concerning a New Relationship between the Government of Canada and the Crees of Eeyou Istchee* was signed between the Government of Canada, the GCC and the Cree Regional Authority (CRA) (Canada-GCC-CRA, 2007).

After the *Agreement Concerning a New Relationship between the Government of Canada and the Crees of Eeyou* was signed, "the Government of Canada amended the *Cree-Naskapi of* Quebec *Act* (CNQA) to empower the Cree Regional Authority (CRA) with bylaw-making powers similar to those of the local Cree governments for the purpose of setting regional standards" (AANDC, n.d.). In the second implementation phase, "the Government of Canada and the Government of Quebec [have begun] to negotiate a Self-Government Agreement with the Cree to modernize their current governance regime, which include[s] the development of a Cree constitution and the establishment of a Cree Nation Government" (AANDC, n.d.). In 2012, the *Agreement on Governance in the Eeyou Istchee James Bay Territory* was signed between the Government of Québec and the Cree Nation and called for the replacement of the James Bay Municipality by a new regional government encompassing indigenous and non-indigenous communities (Cree Nation-Québec, 2012). As such, the newly created Eeyou Istchee - James Bay Regional Government was officially launched on January 21st, 2014 (CBC, 2014).

The offshore islands in Hudson Bays and James Bay were under the jurisdiction of the former Northeast Territories until 1999, and then under the jurisdiction of the Territory of Nunavut (under the Nunavut Final Agreement between the Government of Canada, the Government of the Northeast Territories and the Tungavik Federation of Nunavut (1993)). Mulrennan and Scott (2000) mentioned the "impeding anomaly of the Inuit of Nunavut exercising legal self-government jurisdiction over islands belonging to the Cree and Inuit in northern Québec" (p. 697).

However, the negotiation of a Cree offshore agreement (for Québec's 10 Cree communities) began after the creation of Nunavut. The three parties involved were the Government of Canada, the GCC and the Government of Nunavut, and the objective of the agreement was to officially designate parts of the offshore ownership to the Cree (GCC-Canada-Nunavut, 2009). It took about a decade until the offshore agreement was finally signed in June 2009 (GCC-Canada-Nunavut, 2009), which was followed by the ratification vote in the 10 Cree communities between mid-2009 and mid-2010. The ratification was successful and led to the official signing of the *Eeyou Marine Region Land Claims Agreement*[10] (EMRLCA) on July 7, 2010, by representatives from AANDC, the GCC and the Government of Nunavut (GCC-Canada-Nunavut, 2010). This led to the majority of the offshore islands along the eastern coast of James Bay being recognized as falling under Cree ownership. Furthermore, Chapter 13 of the EMRLCA includes provisions for MPA creation specifically and for the institutional establishment of the Eeyou Marine Region Wildlife Board (EMRWB) (GCC-Canada-Nunavut, 2010). The membership of the co-management board was finalized in spring 2014 and brings together government representatives from one of the GCC designated organizations as well as from Nunavut and Canada (Eeyou Marine Region, 2014).

Along the northern coastline of Québec, there are currently "small sections of protected terrestrial areas [that] extend to the intertidal environment and are considered marine protected areas" (SNAP, 2010, p. 3) under provincial jurisdiction. There have been preliminary discussions about the Tawich project between the Crees, the WPAP and Parks Canada since 2008 but it has not been formally approved as a NMCA potential site (Mulrennan et al., 2012). In the eventuality

[10] The EMRLCA "covers an area of approximately 61,270 square kilometres along the Québec shore in James Bay and south-eastern Hudson Bay. The islands in this area represent approximately 1,650 square kilometres of land mass of which almost 1,050 square kilometres will be owned by the Crees, including rights to the land and subsurface resources" (AANDC, 2010).

the Cree decide to go ahead with the Tawich project, the EMRWB would likely facilitate inter-jurisdictional planning discussions. According to Mulrennan et al. (2012), "High-level talks between the GCC and Parks Canada [continue to] indicate strong support for advancing this proposal" (p. 248).

2.2. MPA Policy Context

Based on jurisdictional context of Québec's marine and coastal areas (section 2.1), the designation of MPAs involves both federal and provincial agencies. The PMSSL, the first MPA in Québec, was officially designated in June 1998 with the passing of two mirroring laws, one by the Parliament of Canada and the other by Québec's National Assembly (Canada-Québec, 2009). However, the federal-provincial jurisdictional conflicts pertaining to the St. Lawrence Estuary and Gulf were not fully resolved (SNAP, 2010). As mentioned previously (section 1.1.1), there are three federal agencies that designate MPAs, under the lead and coordination of DFO, which have worked with the provincial government to advance MPA creation in Québec.

At the federal level, the three agencies that have the mandate to create MPAs are: 1) DFO through the *Oceans Act* (Government of Canada, 1996); 2) Environment Canada through the *Canada Wildlife Act* (Government of Canada, 1985) and *Migratory Bird Convention Act* (Government of Canada, 1994); and 3) Parks Canada through the *NMCA Act* (Government of Canada, 2002a). In DFO's 2011 *National Framework for Canada's Network of Marine Protected Areas*, a spatial planning conceptualization was presented which defined 13 marine bioregions covering all of Canada's ocean estate including the Great Lakes (DFO, 2011a). Previously, five Large Marine Management Areas (LOMAs) were created by DFO to consider "Ecosystem health and economic development issues within the LOMA boundaries (…) through comprehensive Integrated Oceans Management (IOM) governance processes" (DFO, 2011a, p. 10): 1) the Pacific North Coast; 2) Beaufort Sea; 3) Gulf of St. Lawrence; 4) Eastern Scotian Shelf; and 5) Placentia Bay/Grand Banks.

Before 2011, the LOMA's (and their IOM governance approach) were used by DFO to spatially plan MPAs within their boundaries (DFO, 2014a). Since the conceptualization of the 13 marine bioregions, they continue to support the spatial planning of other marine activities such as fishing, energy development, eco-tourism, telecommunications, maritime defence, scientific activities, and shipping (DFO, 2014a). They also continue to facilitate the planning of MPA

networks within their boundaries (DFO, 2011a). As stated in the *National Framework for Canada's Network of Marine Protected Areas*, "In the bioregions that do not have adequate IOM governance associated with them, there may be other existing governance processes to build on. (…) Where there are new governance processes to work out, it will take longer to establish relationships and get underway with marine protected area network planning" (DFO, 2011a, p. 10).

At the provincial level, the MDDELCC takes the lead on MPA planning but must consult with the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ), the Ministère de l'Énergie et des Ressources naturelles du Québec (MERN), the Secrétariat aux affaires intergouvernementales canadiennes (SAIC) and the Conseil des Ministres before any significant decisions are made. Québec does not have a PA designation specifically for marine areas but used its existing 'aquatic reserve' PA designation to establish the RAPM in August 2013 (MDDEFP, 2013).

Québec's Ecological Reference Framework was conceptualized by Li & Ducruc in 1999 to provide a foundation for the creation of PAs. The first level of this framework consists of 13 Natural Provinces, 12 terrestrial and one marine. In terms of coastal/marine areas surrounding the province, the Natural Province X represents the St. Lawrence Estuary and Gulf, and the intertidal areas down to the low tide mark along the northern coast of Québec are part of the Natural Provinces F, H, J, K, L (Li & Ducruc, 1999). Thus, Québec is jurisdictionally responsible for the creation of MPAs in Natural Province X and the intertidal areas of Natural Provinces F, H, J, K, L.

2.2.1. Endangered Species Laws

The main endangered species laws in Canada and Québec are presented here because they are governance tools that can facilitate the planning and faster designation of MPAs by both governmental and non-government actors.

At the federal level, the *Committee on the Status of Endangered Wildlife in Canada* (COSEWIC) was "created in 1977 as a result of a decision made at the Conference of Federal-Provincial-Territorial Wildlife Directors held in 1976 in Fredericton, New Brunswick. It arose from the need for a single, official, scientifically sound, national classification of wildlife species at risk" (Government of Canada, n.d.). In 2002, the *Species at Risk Act* (SARA) was adopted as

part of the *National Strategy for the Protection of Species at Risk*, which aims to honour Canada's biodiversity conservation commitment under the CBD (Government of Canada, 2002b). The purpose of SARA is to "prevent wildlife species in Canada from disappearing, to provide for the recovery of wildlife species that are extirpated (no longer exist in the wild in Canada), endangered, or threatened as a result of human activity, and to manage species of special concern to prevent them from becoming endangered or threatened" (Environment Canada, n.d.). In June 2003, the SARA established COSEWIC "as an advisory body, thus ensuring that wildlife species will continue to be assessed using the best available scientific and Aboriginal Traditional Knowledge" (Government of Canada, n.d.).

In Québec, the 1989 *Loi sur les espèces menacées ou vulnérables* (including its amendments) has the mandate to protect the genetic biodiversity within the province (Gouvernement du Québec, 1989). More specifically, this law aims to avoid the extinction of living species in Québec, to avoid a decrease of the endangered species distribution, to ensure conservation of endangered and vulnerable species habitat, to restore viable populations and habitats of endangered and vulnerable species, and to stop other species from becoming endangered or vulnerable (Gouvernement du Québec, 1989).

Chapter 3. Conceptual Framework and Literature Review on MPA Governance

This chapter is organized into two main parts: a broad conceptual framework for this study is presented (section 3.1) followed by a more detailed review of the existing MPA governance literature, which includes both peer-reviewed and non peer-reviewed studies (section 3.2). The latter includes the identification of a gap in the literature in terms of on-the-ground social-political assessments of MPA stakeholder perspectives in general and even more so during pre-establishment stages. The research disciplines considered in this chapter are social sciences, environmental studies, conservation biology, human geography, political ecology, marine policy.

The conceptual framework (section 3.1) addresses the concept of governance, including an account of how the concept has been understood over time. Section 3.1.1 focuses on one co-governance approach, co-management, which embodies principles that are used in this study to assess the establishment stages of four MPA cases. The framework in section 3.1.2 discusses social networks and two of its related components: bridging organizations and leadership, because these are considered in this thesis as emerging co-governance arrangements.

The MPA governance literature review (section 3.2), which is predominantly theoretical, is structured under 3 main themes: PA/MPA governance types (section 3.2.1); PA/MPA governance actors and participation with an emphasis on indigenous peoples (section 3.2.2); and PA/MPA governance evaluation schemes (good governance principles, Jones et al.'s (2011) MPA governance framework and Jentoft et al.'s (2007) governance system analysis) (section 3.2.3). This literature review mainly focuses on the considerations of governance that relate to the planning of MPAs in settler states (primarily with a federated government system) for whom indigenous-state relations are significant: Australia; the United States; and Canada.

3.1. Conceptual Framework

During the last century, scholars in the social and political sciences began to develop an interest in the concept of governance. Governance initially encompassed only the authority and political power of the state, which has been termed in many ways including traditional, monocentric, centralized, and top-down governance (e.g. Rhodes, 1997; Pierre, 2000). Since then, failures of central states starting in the mid-1900s, as well as numerous decentralization drivers, have transformed the strict top-down governance model and increased the role of non-state actors (e.g. Osborne & Gaebler, 1992; Lemos & Agrawal, 2006; Kooiman et al., 2008). In

the context of environmental governance, these drivers of change include social movements of the 1960s (e.g. Carson, 1962), neo-liberalism (e.g. Krajnc, 2000; Lemos and Agrawal, 2006) and increased recognition of the important contribution some indigenous peoples have made toward conservation and management of natural resources (e.g. Mulrennan, 2013). Over the years, this combination of governing actors has provided better options to take on increasing social diversity and complexity as well as major societal problems such as global warming and poverty (Kooiman et al., 2008). The majority of hybrid governance perspectives emerged as a critique of monocentric governance (e.g. Ostrom, 1990; Kooiman, 1993; Rhodes, 1997). As early as the late 1960s, natural resource management scholars using different theoretical constructs began to highlight the limitations of top-down centralized management and support a shift to alternative governance arrangements (Holling, 1973; Ostrom, 1990; Blaikie & Brookfield, 1987; Kooiman, 1993; Stevens, 1997).

Kooiman (1993) was one author to bring attention to hybrid governance by discussing interactions between government and society. Ten years later, Kooiman (2003) argued for a restructuring of governing activities and responsibilities and provided working definitions for both 'governing' and 'governance' as referenced in some coastal/marine conservation literature (e.g. Kooiman et al., 2005; Jentoft et al., 2007):

> Governing can be considered as the totality of interactions, in which public as well as private actors participate, aimed at solving societal problems or creating societal opportunities; attending to the institutions as contexts for these governing interactions; and establishing a normative foundation for all those activities. (p. 4)
>
> Governance can be seen as the totality of theoretical conceptions on governing. (p. 4)

In the academic field of natural resources management, governance is often used interchangeably with management. This thesis abides to the following distinction made by Béné and Neiland (2006):

> "Management is about action, governance about politics. Management is about the implementation – in a technocratic sense – of decisions and actions in accordance with rules (these decisions and actions do not have to be restricted to the implementation of management tools per se, they can also relate to planning and assessment). Governance is about sharing responsibility and power; it is about setting the policy agenda and objectives and about the processes of implementing management actions". (p. 10-11)

To address the context of this thesis on emerging co-governance arrangements in MPA pre-establishment, I further review Kooiman's (2003) three modes of governance and Kooiman et al.'s (2005) interactive governance theory.

Kooiman (2003) conceptualized three modes of governance that represent an ascending continuum of power-sharing between the state and non-state actors: self-governance; co-governance; and hierarchal governance[11]. Self-governance is characterized by events in which non-state actors govern themselves outside the authority of any government agency and focuses on devolution and citizen power (Newman, 2001; Kooiman, 2003; Kooiman et al., 2008). Collective action researchers, beginning with Ostrom in 1990, have used the self-governance model to conduct a systematic analysis of the exploitation of common-pool resources.

The research on participatory governance can be traced back to an Arnstein (1969) article, focusing on citizen participation in U.S. planning processes in general, which discussed power transfer from governments to non-state actors and conceptualized a ladder of citizen participation. Many scholars have since built on this concept (e.g. Sithole et al., 2009). Angell (2005) created an adapted and more current version of Arnstein's ladder from the perspective of the state and its six levels of engagement of power sharing: 1) Information; 2) Education; 3) Consultation; 4) Involvement; 5) Partnership; and 6) Devolved Power (see Figure 3.1).

[11] A few years later, Kooiman et al. (2005) framed these three governance modes within interactive governance theory.

Figure 3.1 - Angell's (2005) Ladder of Engagement Adapted from Arnstein (1969)

The key element of co-governance, as described by Kooiman et al. (2008), is the following: "societal parties join[ing] hands with a common purpose in mind, and stak[ing] their identities and autonomy to this process" (p. 9) to govern natural resources they cannot govern on their own. As for hierarchical governance, it is defined as centralized, top-down state control (Newman, 2001; Kooiman, 2003; Kooiman et al., 2008).

Different levels of community engagement vary based on the degree of power-sharing with governments (e.g. Arnstein, 1969). According to Borrini-Feyerabend et al. (2013), more participative engagement of local citizens and communities is crucial from the onset of MPA discussions and planning. It can increase public support for conservation, cooperation, and

compliance, as well as bring in governance information from diverse perspectives and enhance the likelihood of attaining conservation objectives of MPAs over time (Borrini-Feyerabend et al., 2013). In many cases, governments have adopted a more partnering and collaborative role to facilitate public debates and discussions in recent years (e.g. Jessen et al., 2011).

Kooiman et al. (2005) conceptualized the theory of interactive governance to focus on: "The whole of interactions taken to solve societal problems and to create societal opportunities; including the formulation and application of principles guiding those interactions and care for institutions that enable and control them" (p. 17). This theory has been applied to marine resource governance cases including fisheries (Kooiman et al, 2005; Jentoft et al., 2007) and MPAs (Jentoft et al., 2011; Chuenpagdee et al., 2013).

3.1.1. Co-Management as a Co-Governance Arrangement

Co-management is generally associated with natural resource management and is “often formulated in terms of some arrangement of power sharing between the State and a community of resource users” (Carlsson & Berkes, 2005, p. 45). Indeed, co-management was initially described as a simple two-way relationship between the state and community actors but this definition was challenged by Carlsson and Berkes (2005). It is now widely accepted that co-management requires: 1) considerable local participation in decision-making supported by institutionalized partnerships (Berkes, 2009; Plummer & Armitage, 2007a,b); and 2) the involvement of a multitude of actors as conceptualized in Figure 3.2 (Carlsson & Berkes, 2005). In this collaborative process, it is also recognized that governments and communities are not homogenous entities (e.g. Mulrennan, 2008) but rather consist of numerous agencies and local interests.

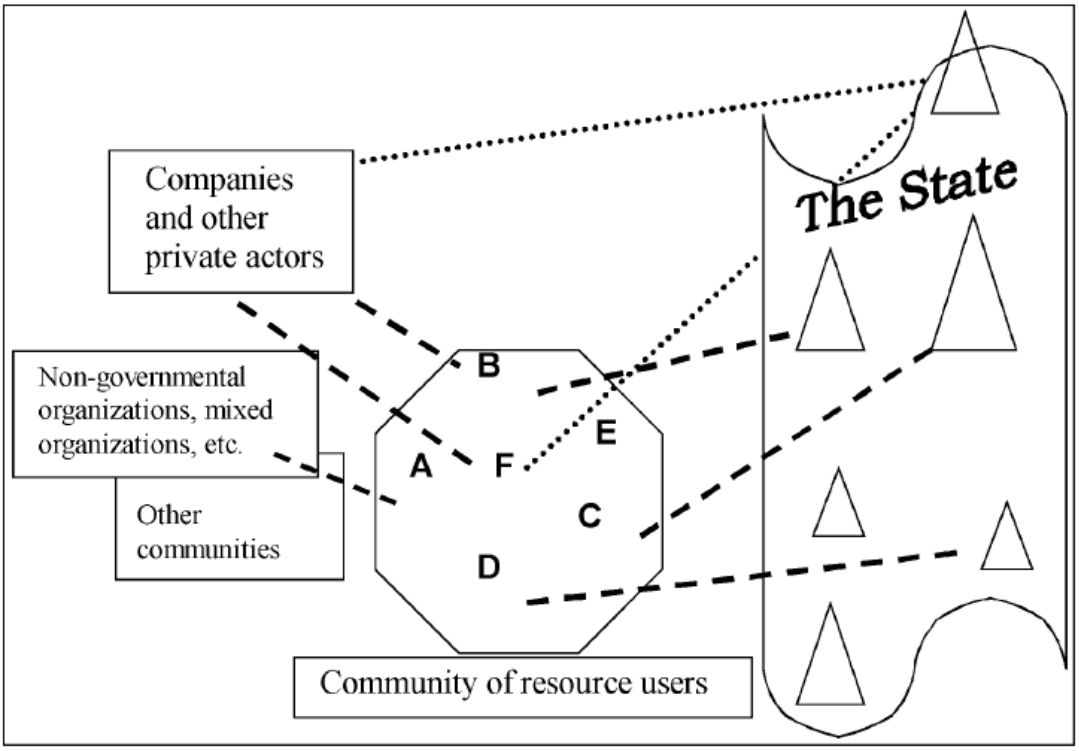

Figure 3.2 - Example of a co-management network (source: Carlsson & Berkes, 2005)

According to Carlsson and Berkes (2005) and Berkes (2009), co-management is not just a formal hierarchy but a continual problem-solving process in which stakeholders repeatedly adjust their stance and activities. This element is borrowed from the iterative process found in complex system theory's adaptive management approach (e.g. Holling, 1973). An important dimension of co-management discussed is the potential for "vertical linkages across levels of organization and horizontal linkages among actors at the same level of organization" (Berkes, 2009, p. 1693), described in terms of social networks which are further discussed in section 3.1.2 (Olsson et al., 2007; Wilson et al., 2006). Indeed, Natcher et al. (2005) suggest that co-management not only concerns managing resources but also relationships because the basis of this approach is the involvement of local and/or traditional peoples in decision-making. According to Fabricius et al. (2007), "the knowledge, experience, institutions and organizational capabilities" (p. 2) of these peoples must be recognized and incorporated in environmental governance arrangements. Folke et al. (2005) acknowledge that some members of these local communities can detect fluctuations in the ecosystem before anyone else and that their livelihood is directly affected by management decisions.

Berkes (2009) presents six social aspects of co-management that have recently emerged in the literature: power sharing; institution building; trust and social capital; process problem solving; and governance. According to Eamer (2006), one of the most important advantages of co-management is consolidating knowledge acquired at various scales by bringing numerous actors to the discussion table. Carlsson and Berkes (2005) identify six activities that have typically benefited from co-management: division of labour tasks across scales within management systems; exchange of resources and knowledge; linking different types and levels of organization; reduction of transaction costs; risk sharing; and conflict resolution mechanisms. However, it has been noted by Dobbs (2000) and Carlsson and Berkes (2005), among others, that power sharing as a result of co-management does not automatically erase all existing power relations within a community. Some authors have focused on the ineffectiveness of the co-management regime for local and/or indigenous peoples (e.g. Nadasdy, 2005; Fabricius et al., 2007). For example, Nadasdy (2005) argued that co-management is an extension of state power into the communities and lives of indigenous people. Furthermore, Young (2002) and Olsson et al. (2007), among others, discuss the mismatch that often occurs between the "scale of social organization and the biogeophysical scale of resources in time and/or space" (cited in Termeer et al., 2010, p. 29). As such, the boundaries of many resources, such as water and biodiversity, are dynamic and do not generally align with geopolitical management borders (e.g. Termeer et al., 2010).

Over the last decade, some researchers have used a participatory methodology to study co-management of natural resources (e.g. Kaplan & McCay, 2004; Trimble & Berkes, 2013) and PA initiatives specifically (e.g. Mulrennan & Scott, 2005; Bown, 2011). As described by Kaplan and McCay (2004), by making the process more transparent, cooperative research is considered a "mechanism to renew trust and good faith in the management process" (p. 258).

3.1.2. Social Networks

In recent environmental governance literature, these network systems are described as aiming to shape and/or implement regulations in a more diffuse and informal manner than formal decision-making (Carlsson & Berkes, 2005). Co-management networks involving collaboration of local communities necessitate much trust building by skilled individuals at different levels (Hahn et al., 2006).

Linkages and relationships between actors, including sharing of information, distribution of resources as well as more formal arrangements, spread the responsibility and risk (Carlsson & Berkes, 2005). According to Hahn et al. (2008), the number of actors and linkages determine the size of a given network, while its strength varies according to the ability of actors to point out common interests as well as share information and build support among stakeholders. Alexander and Armitage (2014) argue the following, based on research by Carlsson and Berkes (2005) and Fox et al. (2012):

> The emergence of hybrid governance arrangements in conservation contexts (Armitage et al., 2012), and the inclusion of new actors and stakeholders associated with MPAs and MPA networks, requires more explicit and systematic approaches to examine the formal and informal social networks that are central to multi-actor governance arrangements. (p. 10)

Some challenges faced by social networks have been reported. For example, social networks intended to connect poorly resourced community-based indigenous land and sea management rangers operating in Northern Australia were shown to be significantly hindered by lack of funding and isolation of communities (Woodward, 2008). Furthermore, some political economists maintain that the increase in numbers of social actors within governance systems does not necessarily lead to a more democratic system (Manor, 1999). In addition, the public may be unable to understand the role of different agents acting within networks due do their opacity (Lemos & Agrawal, 2006).

Two key factors of social networks are bridging organizations and leadership. Bridging organizations encompass the role of boundary organizations (e.g. Cash & Moser, 2000 in Folke et al., 2005), which enable a two-way translation between scientists and decision-makers (Hahn et al., 2006). They grow under open institutions, enabling flexibility to manage initiatives with multiple objectives (Shannon & Antypas, 1997).

Bridging organizations are able to generate social capital (Berkes, 2009; Pretty & Ward, 2001) and undertake many processes and strategies, which contribute to resilience of social-ecological systems (Olsson et al., 2004; Hahn et al., 2008). They can also facilitate the bridging of science and local knowledge by providing an "arena for knowledge co-production, trust-building, sense making, learning" (Folke et al., 2005 in Berkes, 2009, p. 1695), and help collaboration within and among organizational levels (Folke et al., 2005; Olsson et al., 2007). Bridging organizations are closely linked to leadership and can facilitate the integration of local

knowledge and government science within co-management (Berkes, 2009). Visionary leaders at different organizational levels can facilitate trust building, conflict management, knowledge generation and compiling and mobilization of broad support for change (Olsson et al., 2006). They also have the potential to develop new ideas for ecosystem management, surmount disagreements and formulate new syntheses (e.g. Ali-Khan & Mulvihill, 2008; Folke et al., 2005; Hahn et al., 2008).

3.2. Literature Review on MPA Governance

As researchers have begun to address the human dimensions (i.e. social, economic, cultural and economic) of MPAs over the last 15 years (Davis, 2002; Mascia, 2004; Pomeroy et al., 2007; Charles & Wilson, 2009), more attention has been devoted to considerations of MPA governance, including the identification of best practices for governance (e.g. Hogg et al., 2013; McCay & Jones, 2011). Many PA and MPA governance attributes have been advanced and discussed theoretically but little empirical research has been conducted to evaluate their on-the-ground efficiency and equity, especially in the case of MPAs. In 2007, Christie and White stated there were important gaps in the MPA governance literature since it was principally made up of grey literature (e.g. Borrini-Feyerabend et al., 2002; Graham et al., 2003; Borrini-Feyerabend et al., 2004; Borrini-Feyerabend et al., 2006) and a few case studies influenced by specific site dynamics (e.g. Heylings & Bravo, 2007).

In 2012, Fox et al. identified several urgent MPA research frontiers including the "role of MPA governance on the magnitude, distribution, and sustainability of MPA impacts" (p. 6). In that sense, there has been an increase of published empirical studies on MPA governance research in the last few years. Examples of studies focusing on developing countries include Chircop et al. (2010), Moreno-Sánchez and Maldonado (2010), Bown (2011), Evans et al. (2011) and Weeks & Jupiter (2013). A few peer-reviewed articles on MPA governance field research in Europe have also been published recently (e.g. Vasconcelos et al., 2012; Hogg et al., 2013; Metcalfe et al., 2013; Roberts & Jones, 2013). There have also been studies on MPA governance in settler countries with federated government structures (e.g. Dalton, 2005; Nursey-Bray, 2011; Voyer et al., 2012), most of which are reviewed within sections 3.2.2 and 3.2.3. This is an encouraging trend but there remains a gap relating to peer-reviewed articles on empirical MPA governance studies, especially focusing on the pre-establishment phase.

This literature review provides an overview of the MPA governance literature divided in three sections: 1) PA/MPA governance types (section 3.2.1); 2) PA/MPA governance actors and participation (section 3.2.2) with an emphasis on indigenous peoples (section 3.2.2.1); and 3) PA/MPA governance evaluation frameworks (section 3.2.3). Some non peer-reviewed publications are presented because they have often provided a foundation for both theory- and practice-based academic research on MPA governance.

3.2.1. PA/MPA Governance Types

As described by Borrini-Feyerabend et al. (2006), "The first attempts at establishing a governance typology for protected areas were made by Borrini-Feyerabend et al. (2002) and Graham et al. (2003)" (p. 117), when preparing for the Durban WPC (2003). During discussions at the Durban WPC, delegates agreed on a governance classification which was subsequently refined in Borrini-Feyerabend et al. (2004): 1) government managed PAs; 2) co-managed PAs; 3) private PAs; and 4) community conserved areas. Since then, the IUCN has published this PA governance classification in numerous publications with some revisions (Borrini-Feyerabend et al., 2006; Dudley et al., 2008; Borrini-Feyerabend et al., 2013). In the more recent IUCN publication *Governance of Protected Areas*, Borrini-Feyerabend et al. (2013) stated that both the IUCN and the CBD officially recognise four types of PA governance (slightly revised from earlier IUCN publications): governance by government (top-down governance); shared governance (co-governance); private governance, and governance by indigenous peoples and local communities (bottom-up governance) (see Table 3.1).

As stated by Jones et al. (2013), "Debates surrounding governance strategies for marine protected areas (MPAs) have to date largely focused on top-down, bottom-up or market-based approaches. Whilst co-management approaches for governing MPAs are widely accepted as a way forward for combining these three strategies, many interpretations of this concept exist and it is applied in many different ways in MPAs in different contexts" (p. 1). McCay and Jones (2011), among others, described the positive aspects of combining both centralized and bottom-up MPA governance tools:

> Top-down governance emphasizes the roles of governments and professional experts as sources of information, rules, and enforcement. It offers several advantages, such as the power and resources of the state and the potential for governance across larger areas. Bottom-up governance empowers members of civil society by involving them directly, either as autonomous decision makers or as partners with government. (p. 1131)

Much theoretical literature has also attempted to look into the scaling up of local MPA projects to regional, national or international MPA networks (e.g. Mahon et al. 2010; Meliane et al., 2010; Christie & Pollnac, 2011).

Governance Type	Sub-types
Type A. Governance by government	• Federal or national ministry or agency in charge • Sub-national ministry or agency in charge (e.g., at regional, provincial, municipal level) • Government-delegated management (e.g., to an NGO)
Type B. Shared governance	• Transboundary governance (formal arrangements between one or more sovereign States or Territories) • Collaborative governance (through various ways in which diverse actors and institutions work together) • Joint governance (pluralist board or other multy-party governing body)
Type C. Private governance	• Conserved areas established and run by: ▫ individual landowners ▫ non-profit organisations (e.g., NGOs, universities) ▫ for-profit organisations (e.g., corporate owners, cooperatives)
Type D. Governance by indigenous peoples and local communities	• Indigenous peoples' conserved territories and areas – established and run by indigenous peoples • Community conserved areas and territories – established and run by local communities

Table 3.1- IUCN Governance types for protected areas (source: Borrini-Feyerabend et al. (2013))

3.2.2. PA/MPA Governance Actors and Participation

The various actors involved in the governance of PAs are clearly described by Borrini-Feyerabend et al. (2013) as governmental actors or non-governmental actors, as well as reasons for them to get involved in PA governance arrangements. Since the acknowledgment of more diverse PA governance types at the Durban WPC (2003) and the increased international recognition for indigenous rights, more and more theoretical and empirical research has been conducted on the role of indigenous and non-indigenous stakeholders in PA co-governance and bottom-up governance, but to a lesser extend in the case of MPAs. A few articles are presented in this section on public participation in MPA governance in general as well as a few others looking specifically at the roles of indigenous and non-indigenous stakeholders.

As described by Jentoft et al. (2007), "The design and functioning of MPAs are prominent social science issues because they involve people and their social relationships and institutions" (p. 615). Dalton (2005) and Jentoft et al. (2007), among others, have stated that much the research (mainly theoretical) has acknowledged the need to involve stakeholders in MPA decision-making. As such, Jentoft et al. (2007) further stated that participation should underpin coastal and marine MPA governance. Similarly, based on both theoretical and empirical natural resources management research in the U.S., Dalton (2005) presented a framework "composed of factors that influence the success of participatory processes: active participant involvement, complete information exchange, fair decision making, efficient administration, and positive participant interactions" (p. 1392). She maintained that using these factors in governance arrangements during pre-establishment of MPAs in the U.S. would most likely achieve conservation goals and stakeholder support in the medium- to long-term (Dalton, 2005).

However, MPA planning and establishment have varying implications among the stakeholder groups involved (e.g. Agardy, 1993; Christie & White, 2007; Borrini-Feyerabend et al., 2013). Voyer al. (2012) analysed "the way in which social assessment is undertaken currently in Australian MPA planning processes by studying three significant contributions" (p. 433) within Australia's *National Representative System of Marine Protected Areas* (all including state and federal jurisdictions). One of their insights to improve MPA planning arrangements was the "Integration of public participation exercises with social and economic impact assessment [that]

would add value to each of these processes with each informing the other" (Voyer al., 2012, p. 437).

3.2.2.1. Indigenous Peoples and MPAs

Four studies (Ban et al., 2008; Nursey-Bray, 2011; Dodson, 2014; Mulrennan et al.; 2012) are presented here that portray how indigenous groups have been involved in MPA planning processes.

To engage two aboriginal communities in British Columbia for their perspectives on MPAs, Ban et al. (2008) developed a three-step approach: "building research partnerships, carrying out individual interviews, and holding community discussion sessions" (p.32). Their findings pointed to "a gap in conservation approaches: the conservation of important areas and resources to indigenous people, allowing the continued practice and adaptation of their culture" (Ban et al., 2008, p. 32).

The research conducted by Nursey-Bray (2011) on MPA examples from Australia used discourse analysis to "explore the role of Indigenous social contexts in two dimensions: (i) management of traditional fisheries and (ii) Indigenous contribution to fisheries within an MPA" (p. 671). Nursey-Bray's (2011) articulated the following lessons, among others, based on her discourse analysis:

- "MPA frameworks need to be flexible and incorporate multiple interpretations of what constitutes marine activity and recognise there are multiple constructions of place." (p. 681)

- "Given the challenging socioeconomic circumstances experienced by Indigenous communities, MPA regimes need to build in social justice components." (p. 681)

- "Recognition of Indigenous rights to harvest marine resources, and their subsequent presence in decision making, has contributed towards the conceptualisation of marine management models that acknowledge cultural diversity as much as biodiversity." (p. 681)

As for Dodson (2014), he studied the conservation partnership activities conducted between 2001 and 2006 as part of the Mimiwhangata marine reserve project located on the northern tip of New Zealand's North Island. The partnership brought together the New Zealand Department of Conservation and the "local Maori tangata whenua (people of the land, indigenous), Te Uri o Hikihiki (the descendants of Hikihiki)" (Dodson, 2014, p. 2), who worked to plan, designate and jointly govern a MPA project at

Mimiwhangata,, after both parties had separately identified degradation of the Mimiwhangata ecosystem (Dodson, 2014). As per his results, Dodson (2014) concluded the following:

> Drawing on the discourse of contemporary Treaty of Waitangi politics, the article argues that participatory processes can be effective means through which to pursue both positive conservation and social outcomes. However, unless the appropriate legislative framework exists in which meaningful ongoing community involvement and control can be constituted, partnership-based conservation is unlikely to deliver substantial conservation or social gains. Fundamental issues concerning indigenous rights, authority, and control persist within the ‘‘partnership’’ framework, which existing marine reserve governance mechanisms in New Zealand do not resolve. (p. 1)

Mulrennan et al. (2012) called for the revamping of community-based conservation via participatory research and discussed the emergence of the WPAP. They stated the following: “The primary and most meaningful research outcome for community members has been progress on the creation of protected areas within the Wemindji territory. Findings based on the knowledge exchange supported by the partnership were used to justify the creation and to inform the design of the Paakumshumwaau-Maatuuskaau Biodiversity Reserve. Similarly, insights and findings from our research collaboration have contributed to a proposed parallel initiative centred on the creation of the Tawich (Marine) Conservation Area” (p. 254). It is thought these PAs will become crucial tools for the Cree to preserve and share its history and culture, and may yield local opportunities for ecotourism and natural resource management and research among others types (Mulrennan et al., 2012).

3.2.3. PA/MPA Governance Evaluation

Three theoretical conceptualizations are discussed here in terms of PA/MPA governance evaluation schemes: 1) good governance principles (3.2.3.1); 2) the MPA governance framework (MPAG) (3.2.3.2); and 3) the MPA governance system analysis (3.2.3.3). The few studies that have used these in practice and focused on federated settler states are briefly presented following each conceptualization.

3.2.3.1. Good Governance Principles

The goal of efficient and equitable PA governance approaches is to achieve ‘good governance’, which is also termed equitable management and equitable governance. This is not say that all governance approaches aim for some universal good such as colonial strategies of indirect rule. When referencing Symes’ (2006) article on fisheries governance, Bown (2011)

states: “Good governance should be neither an abdication of power from the State nor the shifting of burdensome administrative tasks to other institutions; it should be a purposeful arrangement to draw on the opinions, skills, knowledge and experience of different actors in a genuine partnership” (p. 20). Borrini-Feyerabend et al. (2013) define the concept as the following:

> Good governance is a measure of how far certain principles and values are adhered to. These may be derived at the national level , for example as enshrined in constitutions, legislation, policies, cultural practices and customary laws (SCBD, 2004); or they may come from internationally agreed principles for good governance, developed by international organisations and conventions (UNDP, 1999; UNDP, 2002; United Nations, 2006). Although governance values are influenced by the cultural context, we assume that some norms can be taken into account across all cultures (UNDP, 1997). (p. 57)

In 1997, the UNDP proposed ten good governance criteria for sustainable human development (UNDP criteria hereafter). More recently, there is increasing attention given to good governance principles for PAs at the national level (Eagles, 2009; Moore et al., 2011) and international levels (e.g. Graham et al., 2003; SCBD, 2004; Borrini-Feyerabend et al., 2006; Lockwood, 2010). The main classifications of PA good governance principles created at the international scale, including the initial UNDP criteria on sustainable development, are presented in Table 3.2 as well as one national level PA good governance classification chosen here because it focuses on MPAs and Canada. This national classification is detailed in the governance section of the CPAWS *Science-based Guidelines for Marine Protected Areas and MPA Networks in Canada* (Jessen et al., 2011). The last column of Table 3.1 lists its eight principles, which are aligned horizontally with similar principles from the other four international classifications.

Graham et al. (2003) crafted the first international level classification specifically relating to PAs, collapsing some of the ten UNDP criteria to create five categories, which were endorsed by the IUCN World Parks Congress in 2003. A few years later, Lockwood (2010) proposed a different classification partly informed by the UNDP criteria and suggested that “strategic vision, effectiveness and efficiency are best located in the management domain, rather than the governance domain” (cited in Eagles, 2009). The latest IUCN classification of good governance principles for PAs (IUCN principles hereafter) consist of five broad categories with almost the identical names as the Graham et al. (2003) classification (i.e. fairness is now fairness and rights) (Borrini-Feyerabend et al., 2013). However, specific considerations for each were newly

developed based on more recent international meetings and conventions as well as field experience of the authors (Borrini-Feyerabend et al., 2013). Research conducted by Leverington et al. (2010) and Persha et al. (2011), among others, demonstrate that endorsing the IUCN principles can positively support the effective management of PAs. Nevertheless, it is widely accepted that there is still much work to be done before these principles are put into practice on-the-ground (Borrini-Feyerabend et al., 2013).

The analysis of good governance can be conducted to determine whether the practice adheres to accepted principles (Abrams et al., 2003; Borrini-Feyerabend et al., 2013, chapt. 9). As such, many researchers have used the UNDP criteria (1997) for natural resources management analyses (e.g. Hayes, 2006; Eagles, 2009). However, Eagles (2009) argues that PA good governance assessments are mostly lacking (e.g. Hannah, 2006; Hockings et al., 2006). Heylings and Bravo's (2007) work on the Galapagos Marine Reserve is the only comprehensive MPA good governance assessment found for this review.

International Scale				National Scale
Basic UNDP principles (1997)	Combined categories specifically considering PAs (Graham et al., 2003)	Alternative proposal (Lockwood, 2010)	Broad IUCN Principles for PAs (Borrini-Feyerabend et al., 2013)	Good governance attributes relevant to Canadian MPA governance context (Jessen et al., 2011)
Public participation Consensus orientation	Legitimacy and voice	Legitimacy	Legitimacy and voice	Stakeholder engagement Aboriginal partnerships Public awareness and support
Strategic vision	Direction	*	Direction	Commitment Cooperation
Responsiveness	Performance	Accountability	Performance	Accountability
Effectiveness		*		Commitment
Efficiency		*		
Accountability	Accountability	Accountability	Accountability	Accountability
Transparency		Transparency		Transparency
Equity Rule of law	Fairness	Fairness	Fairness and rights	Stakeholder engagement Commitment
		Rule of law Legitimacy Inclusiveness Connectivity Resilience		

Table 3.2 - Good governance PA/MPA attributes (adapted from Eagles et al., 2013)

3.2.3.2. Marine Protected Area Governance Framework

Based on their recognition of the need for MPA co-governance approaches, Jones et al. (2011) created a MPAG framework to analyze the governance of 20 MPA case studies in terms of their effectiveness in addressing conflicts and achieving conservation goals[12]. This framework uses five categories of incentives (legal, economic, interpretative, knowledge, participative) derived from the three main governance approaches (bottom-up, collaborative, and top-down); incentives being defined as steering and empowering mechanisms that enable a balance of power in governing MPAs. This framework assessed the effectiveness of different combinations of incentives, which significantly depended on the local context of each study (Jones et al. 2011). Jones et al. (2011) concluded that an MPA governance approach will be more equitable, efficient and resilient to perturbations by using a wide variety of incentives. Improving MPA governance therefore means strengthening the linkages between different incentives and promoting the diversity of incentives and governance approaches (Jones et al., 2011). Three of the MPA cases evaluated by Jones et al. (2011) were from settler federated states: the National Marine Sanctuaries (United States), the California MPAs (United States) and the Great Barrier Reef Marine Park (Australia). When referring to the evaluation of these three cases, Jones et al. (2011) stated "that having a strong legal framework does not preclude opportunities for user participation" (p. x).

I chose to us the wording 'facilitating mechanisms' as the over-arching theme of my interview coding process primarily because I found it is more clear and self-explanatory than Jones et al.'s (2011) 'incentives' concept. However, I retain Jones et al.'s (2011) definition of 'incentives' to describe facilitating mechanisms is this study: steering and empowering mechanisms that enable a balance of power in governing MPAs. I subsequently found similar wording in the common pool resources (CPR) literature. Wade (1994) described facilitating conditions for successful management of CPR and Agrawal (2002) further developed the concept in his comparative analysis of three books presenting the most favorable conditions for sustainable self-management of CPR (Wade, 1994; Ostrom, 1990; Baland and Platteau, 1996).

[12] As stated by Jones et al. (2013), "The contributors to these case studies included MPA managers and related academic researchers, all of whom had a deep understanding of governance issues in their case studies. Their views may not, however, represent the views of other experts on these case studies or of people who are affected by a given MPA" (p. 3).

3.2.3.3. Governance System Analysis

Building on prior contributions of interactive governance theory (e.g. Kooiman et al., 2005; Kooiman et al., 2008), Jentoft et al. (2007) stated the following to describe components of their 'governance system analysis':

> The interactive governance theory and the governability concept provide an elaborate and coherent analytical framework for the evaluation of MPA performance. Firstly, it involves looking at MPAs from the inside out: How do MPAs work as instruments of management? How effective are they? Do they attain their goals? In governance terms this means perceiving MPAs as a governing system (GS), as subjects of governance. Secondly, MPAs may be studied as systems-to-be-governed (SG), and thus as objects of governance. (p. 613)

Drawing from Jentoft (2007), Jentoft et al. (2007) maintained that "the governing system and the system-to-be-governed, as well as the interactive system they form together, share similar structural traits: they are all diverse, complex, dynamic and vulnerable" (p. 613), which they point out brings up questions about their governability. As such, Jentoft et al. (2007) put forward a matrix that presents the "relevant issues and concerns with regard to the governability of MPAs" (p. 611), with the governing system, system-to-be-governed and interactive system forming the columns and their four structural traits forming the rows. The matrix issues/concerns were described as potentially useful analytical gateways for future empirical studies. Since then, a few empirical studies have built on interactive governance theory and Jentoft et al.'s (2007) MPA governability matrix including Gonzalez and Jentoft (2011), Jentoft et al. (2011), Jentoft et al. (2012) and Chuenpagdee et al. (2013).

Building on interactive governance theory, Chuenpagdee et al. (2013) theorized the MPA pre-establishment process as 'step zero', "the initial stage when the idea was conceived, communicated, and discussed among stakeholders" (p. 234). They challenged the fact that others attributed many MPA failures to rules/regulations pertaining to design and operation. Rather, they argued that reasons for lack of success are found in the 'step zero' process, mainly in terms of power conflicts among stakeholders and broader political challenges (Chuenpagdee et al., 2013). The authors then briefly presented four MPA initiatives (in Mexico and Spain) to highlight the importance of researching the political and power conflicts that can potentially arise during the 'step zero'.

3.3. Concluding Remarks

This review has identified a significant gap in the literature in terms of on-the-ground governance assessment of MPA stakeholder perspectives in general and even more so during pre-establishment (Carneiro, 2011; Gleason et al., 2010; Chuenpagdee et al., 2013). To address this gap, this study provides a broad assessment of the emerging co-governance arrangements during the pre-establishment stages of four MPAs cases using concepts from the natural resource co-management and social networks literature as well as the few existing theory-based and very few practice-based MPA governance publications/articles.

Over the last five years, there has been an increase of empirical research on MPA governance most of which focuses on co-governance as well as governance by indigenous peoples and local communities. However, literature pertaining to the governance of pre-establishment stages of MPAs remains limited. Chuenpagdee et al. (2013) theorized and highlighted the importance of the MPA 'step-zero' but did not provide detailed steps to follow during pre-establishment planning processes.

Chapter 4. Methods

The first section of this chapter (4.1) explains the use of a qualitative exploratory methodology and applied thematic analysis as a methodological framework (section 4.2.1) in this thesis. Next, the five steps of the Interview Analysis Procedure (section 4.2) are presented: the MPA case selection (section 4.2.2); the interview design and data collection (section 4.2.3); the data analysis (section 4.2.4); the presentation of findings (section 4.2.5); and the validity and reliability (section 4.2.6). Concluding remarks are discussed in section 4.3.

The methods entailed four different steps: 1) conducting the literature review presented in Chapter 3; 2) co-organizing and participating in Québec's first MPA Symposium; 3) reviewing stakeholder documents; and 4) preparing, conducting and analysing interviews with a diversity of representatives from stakeholder groups involved in pre-establishment stages of the four Québec MPA cases. Interviews comprised the primary research method, details of which are provided in the Interview Analysis Procedure (Section 4.2). The findings from the latter are the foundation for the evaluation of the planning experience of four MPA initiatives in Québec.

Steps two and three served as preparatory activities that helped familiarize me with the issues and key stakeholders prior to going into the field. Step two involved my participation in the collaborative planning and participation of Québec's first MPA Symposium, which took place in Rimouski in June 2010, and was jointly organized by the SNAP and the WPAP. Since this event brought together numerous ENGOs, governmental agencies, indigenous communities, and researchers, it was a valuable opportunity to learn about constraints and opportunities encountered in each case study. To support my background inquiry into the four MPA cases and the stakeholders involved (step three), I reviewed many research, educational and policy documents on MPA planning in Québec.

4.1. Qualitative Exploratory Research

This research uses a qualitative exploratory approach to conduct on-the-ground research. Qualitative inquiry delves into the context, comprehension and perspective of the people closest to the phenomena (Babbie, 2001), which is helpful when trying to understand holistic, interpretative and complex human dimension issues/problems (Creswell, 1994), such as environmental governance. Qualitative research, unlike quantitative research, does not test hypotheses with statistical analyses of numerical measurements in order to generalize or predict.

Rather, the richness of qualitative studies lies in the exploration of patterns and meanings that cannot be predicted (Babbie, 2001).

The exploratory (or inductive) approach is the most common analytical purpose of qualitative analyses, which strives to comprehend perspectives and propose questions for future research (Guest at al., 2012). Exploratory research is most suitable for this inquiry because no prior studies have investigated facilitating mechanisms, steering and empowering mechanisms that enable a balance of power in governing MPAs (Jones et al., 2011), experienced by MPA stakeholders in Québec during pre-establishment stages. While there are some valid limitations to exploratory research, such as not providing causal findings (Babbie and Benaquisto, 2002), its value is increasingly recognized by academic researchers (Flyvberg, 2006).

4.2. Interview Analysis Procedure

This section describes the methodological approach (section 4.2.1) used for the interview analysis procedure as well as its five steps: the MPA case selection (section 4.2.2); the interview design and data collection (section 4.2.3); the data analysis (section 4.2.4); the presentation of findings (section 4.2.5); and the validity and reliability (section 4.2.6).

4.2.1. Methodological Approach: Applied Thematic Analysis

The methodological approach used to collect and analyze the interview data was applied thematic analysis (ATA) (e.g. Braun & Clark, 2006; Braun & Clark, 2012; Guest et al., 2012). As described by Guest et al. (2012), ATA is a "rigorous, yet inductive, set of procedures designed to identify and examine themes from textual data in a way that is transparent and credible" (p. 16). According to Guest et al. (2012), APA draws from "grounded theory, positivism, interpretivism, and phenomenology" (p. 15), and has been adapted to solve practical and applied problems. The ultimate goal of ATA is to report most accurately the experiences and stories voiced by informants (e.g. Braun & Clark, 2006). Researchers have used similar techniques to ATA for decades however Guest et al. (2012) have argued that a detailed ATA procedure with a focus on methodological rigor has been missing.

4.2.2. MPA Case Selection

This research focuses on the pre-establishment stages of four MPA cases in Québec, which spans approximately 30 years (see table 4.1). It includes two designated MPAs (the

PMSSL and the RAPM) and two proposed MPAs (the Îles-de-la-Madeleine federal-provincial project and a project initiated by the Cree Nation of Wemindji (Tawich)) (see Figure 4.1). At the time of developing my research proposal (spring 2010), these were the only four MPA cases, with ongoing discussions, in the province. DFO's St. Lawrence Estuary Area of Interest was widely regarded as paused.

	PMSSL	**RAPM**	**Îles-de-la-Madeleine**	**Tawich**
Area (km^2)	1 245	543	16, 500 (study area)	> 20,000
Onset of Discussions	Early-1980s	1998	2001	Early-2000s
Status	Designated in 1998	Designated in 2013	Proposed MPA site by Parks Canada and MDDELCC	Proposed (not officially approved as a potential NMCA site by Parks Canada)

Table 4.1 - Overview of the four MPA cases assessed in this study

Figure 4.1 - Map of Québec and general location of the four MPA initiatives discussed in this study (sources: Parks Canada, & Parcs Québec, n.d.; Mulrennan et al., 2009; SNAP, 2010; Gouvernement du Québec, 2013; Canada-Québec, 2014)

4.2.3. Interview Design and Data Collection

The semi-structured interview questions were designed before going into the field and approved by Concordia's Geography, Planning and Environment Departmental Ethics Committee. Since the interviews were intended for different stakeholders (i.e. state and non-state representatives), the questions were adapted and made appropriate for each interviewee and MPA case, and focused on governance of MPAs cases during their pre-establishment stages (see Appendix B for an example interview guide drafted before meeting with two MDDELCC employees). For example, questions directed to governmental informants were more specific to try to get past any evasive political answers to more focused answers. Furthermore, questions slightly differed for each MPA case based on their unique socio-cultural and MPA policy context. Semi-structured interviews allowed me to deviate from my prepared questions to let the

informants elaborate more on the themes most important to them (Bryman & Teevan, 2005; Hay, 2005).

Non-probalistic sampling of research informants was used as is typical in exploratory studies (Guest et al., 2012). Key informants were mainly identified at Québec's first MPA Symposium and in the field. Once in the field, each informant and I co-signed two copies of the consent form, one for their records and one for mine. The interviews lasted between one to two hours and were mostly recorded. There were a few instances when informants requested that the interview not be recorded due to the sensitivity of the case at the time. I took written notes during these interviews.

The interviews were conducted between June 2009 and March 2010, and took place in the following communities/cities in Québec (in alphabetical order): Cap-aux-Meules; Essipit; Havre-aux-Maisons; Montréal; Pessamit; Pointe-aux-Outardes; Québec City; Tadoussac; and Wemindji. One interview was conducted in Gagetown, New Brunswick. Twenty-one semi-structured interviews were conducted with a range of informants from agencies/communities/organizations involved with the planning of one or more of the MPA cases (see Table 4.2). Two informants were present for the interview with representatives from the Pessamit Band Council as well as the interview with representatives from the Îles-de-la-Madeleine ZIP Committee[13].

[13] There are 13 'areas of prime concern' (ZIP) on the St. Lawrence River within the interjurisdictional *St. Lawrence Action Plan 2011-2026*. More information on the ZIP Program history is provided here: http://planstlaurent.qc.ca/en/integrated_management/zip_program.html.

Informant Name	Affiliation	Title	MPA Cases
Rodney Mark	Wemindji Band Council	Former Chief/Current Deputy Grand Chief	Tawich project
Edward Georgekish	Cree Trappers Association	Former President of CTA chapter in Wemindji	Tawich project
Dennis Georgekish	Wemindji Band Council	Chief	Tawich project
Richard Nadeau	DFO	Regional Director General, Québec Region	RAPM
Rodolphe Balej	MDDELCC, Direction de l'écologie et de la conservation	MPA Coordinator	RAPM Îles-de-la-Madeleine project
Patrick Beauchesne	MDDELCC, Direction de l'écologie et de la conservation	Director	RAPM Îles-de-la-Madeleine project
Patrick Nadeau	SNAP	Executive Director	PMSSL Îles-de-la-Madeleine project Tawich project
Sylvain Archambault	SNAP	Consultant Biologist	PMSSL Îles-de-la-Madeleine project Tawich project
Nadia Ménard	Parks Canada	Biologist, PMSSL	PMSSL
Denis Ross	Essipit Band Council	Chief	PMSSL
Jules Dufour	Comité de direction	Former President	PMSSL
Leone Pippard	Former Canadian Ecology Advocates (CEA) ENGO	Former Director	PMSSL
Danielle St-Laurent	Parc Nature Pointe-aux-Outardes (PNPO)	Former Director	DFO's former Manicouagan Peninsula MPA 'Area of Interest' (now RAPM)
René Simon/Jack Picard	Pessamit Band Council	Former Chief/Former Negotiator	DFO's former Manicouagan Peninsula MPA 'Area of Interest' (now RAPM)
Élaine Albert	DFO	Ecosystem Management Project	DFO's former Manicouagan

		Manager, Institut Maurice-Lamontagne	Peninsula MPA 'Area of Interest' (now RAPM) Tawich project (briefly)
Gugliermo Tita	Université du Québec à Rimouski (UQAR), CERMIM	Professor (UQAR) Executive Director (CERMIM)	Îles-de-la-Madeleine project
Joël Arseneau	Îles-de-la-Madeleine Municipality	Former Mayor	Îles-de-la-Madeleine project
Selma Pereira	DFO	Biologist, Îles-de-la-Madeleine Sector	Îles-de-la-Madeleine project
Luc Miousse	Parcs Canada	Coordinator, Îles-de-la-Madeleine MPA project	Îles-de-la-Madeleine project
Léonard Poirier	Association des pêcheurs propriétaires des Îles-de-la-Madeleine (APPÎM)	Executive Director	Îles-de-la-Madeleine project
Yves Martinet/Helene Tivemark	Îles-de-la-Madeleine ZIP Committee	Director/Assistant Director	Îles-de-la-Madeleine project

Table 4.2 - Informant names, agencies/communities/organizations, titles, and relevant MPA case(s)

4.2.4. Data Analysis

The main reason for using qualitative data analysis software (QDAS) is to "facilitate review, exploration, and reduction of qualitative data to present a comprehensive response to a particular research objective" (Guest et al., 2012, p. 234). The 22 interviews undertaken for this study were transcribed, imported, managed and coded with the QDAS named QRS NVivo 10 (NVivo hereafter). NVivo was chosen because it is very user-friendly and most universities, NGOs and government agencies (potential future employers) use it.

The recorded interviews were transcribed verbatim into Word and imported into NVivo. The interviews were then coded by sub-themes within the overarching theme of facilitating mechanisms (Charmaz, 2006), using first a deductive method and then applying an inductive method as the main approach to coding to focus on data-based meaning (Braun & Clarke, 2012). Thus, PA good governance principles from the literature were used as a starting point (e.g. Jessen et al., 2011) but the sub-themes were iteratively identified by reading and re-reading the interview transcripts (Guest et al., 2012). Themes are defined differently by various authors (e.g. Ryan and Bernard, 2003) but this research uses Saldaña's (2009) definition: "a phrase or sentence that identifies what a unit of data is about and/or what it means" (p. 139). The initial overarching interview themes were developed based on the objectives of this study: investigating facilitating mechanisms (this wording is further discussed in section 3.2.3.2) applied during MPA pre-establishment stages in Québec. Sub-themes emerged based on the emphasis on a particular issue or phenomenon and how issues raised by informants related to the objective/research statement. Thus, a list of sub-themes within the facilitating mechanisms overarching theme (see Table 6.1) was constructed iteratively during the coding process in NVivo (Gibbs, 2002; Guest et al., 2012). The sub-theme names were created to be clear and self-explanatory. The coded data was then reviewed and some sub-themes were merged (Guest et al., 2012).

Once the coding was finalized, I conducted many NVivo matrix queries to become familiar with the coded data. Given the large volume of coded data to interpret, a decision was taken to summarize some of it using a data reduction technique used by ATA, simple code frequencies as suggested by Guest et al. (2012). This is consistent with the recommendations of researchers who believe that counting and quantifying qualitative data can increase its persuasiveness and validity (e.g. Silverman, 2000; Guest et al., 2012). However, it also runs

counter to assertions that qualitative data quantification violates the basic objectives and nature of qualitative research (e.g. Suddaby, 2006).

4.2.5. Presentation of Findings

The findings in sections 6.1 and 6.2 are presented as tables (i.e. matrices or extracts from matrices from NVivo queries). While the presentation of some findings with graphs might have been visually more appealing, the exported charts from NVivo were found to be more restrictive to work with.

In section 6.1, the first table (6.1) lists the thirteen facilitating mechanisms sub-themes iteratively identified in the NVivo interview coding process as well as the number of informants that discussed each mechanism. The five facilitating mechanisms for MPA pre-establishment discussed by the most informants are presented in Table 6.2 while Table 6.3 depicts the facilitating mechanisms for each MPA case as identified in the NVivo coding analysis. In section 6.2, Table 6.4 provides a findings summary of the five most commonly discussed facilitating mechanisms for each MPA case as identified in the NVivo coding analysis.

In terms of citing the informants from this research (see Table 4.2) in Chapters 5, 6 and 7, each informant was assigned a random alphabetical letter for confidentiality reasons since the topic of marine conservation in Québec is very sensitive. The citing format is the following: (Informant 'random letter', 'month' 'day', 'year').

4.2.6. Validity and Reliability

Some qualitative researchers have argued that the concepts of validity and reliability are ill-suited to evaluate the trustworthiness of qualitative research (e.g. Krefting, 1991). However, this study follows the approach taken by Guest et al. (2012) in Applied Thematic Analysis (Chapter 4), which evaluates tools to enhance the validity and reliability of qualitative data analysis. Many of these tools are intended to increase reliability when numerous people are conducting the coding. However, as I was the only coder for the present study, the sample size is small. The validity and reliability tools considered for this study and how they were used or not, are discussed below.

I initially attended Québec's first MPA Symposium and conducted a stakeholder documents review, which allowed me to compare information sources for

convergence/divergence (i.e. triangulation). Since my interviews lasted up to two hours and the informants were voluntarily participating, I didn't review with them what they said immediately after the interview, which would have increased the validity. However, since I conducted semi-structured interviews, I often veered off my questionnaire to ask an informant to clarify a point he/she had made.

During the data analysis stage, I developed a codebook with the name and a short definition for each theme and sub-theme to ensure consistent use of codes. The codebook was iteratively revised whenever themes/sub-themes were added, deleted or collapsed. An external review of my coding to point out my biases would have increased the reliability of this project but was not conducted due to lack of time. Negative interview data that contradicted the common themes were not excluded from the analysis or presentation of findings to mitigate my biases as environmentalist. Finally, using some verbatim quotes from the interviews in the discussion (Chapter 7) can increase the validity of my findings by supporting the themes and sub-themes.

4.3. Research Limitations

While conducting my interviews in the field, I would have liked to interview more people to have a more detailed picture of each MPA case however I did not have the time or financial resources to do so. Thus, I had to suffice with five to six interviews per case because my research was not designed to delve into one case but rather provide a broad assessment of four cases. Furthermore, some of the key people I wanted to interview were unavailable, including one who had passed away; instead I interviewed representatives from their agency/organization who provided me with second-hand information. Thus, insights into each MPA case as well as patterns among them are presented but not enough interviews were conducted to extrapolated conclusions based on a case study comparative analysis.

Even though the main interview coding approach was inductive and produced a majority of novel sub-themes within the over-arching facilitating mechanisms theme, the five most commonly discussed sub-themes which are focused on in the discussion, are very similar to the MPA good governance principles presented by Jessen et al. (2011). This can seem like I directly applied those principles during the interview coding but in fact they just provided general guidance during the early stages of the coding process. Thus, the overlaps between the five most

commonly discussed sub-themes in this study and Jessen et al. (2011) provide an interesting perspective of the usefulness of applying good governance principles on-the-ground.

The data analysis proved challenging since I had not used a QDAS before. I read articles, watched videos and participated in a webinar on NVivo. Nonetheless, there were mistakes and corrections in each step of the analysis. In the end, the results produced were satisfying although I feel NVivo was not used to its full potential.

Chapter 5. Account of the Four MPA Cases

This chapter provides an overview of the planning process as well as a brief description of the biological, socio-cultural and economic context of each MPA initiative (summarized in Table 5.1). It is important to note that the four MPA cases have different sizes with varying socio-cultural contexts. The PMSSL is adjacent to the Essipit Innu Nation and seven regional county municipalities (RCMs): Charlevoix-Est; Fjord-du-Saguenay; Ville Saguenay; Haute-Côte-Nord; Kamouraska; Rivière-du-Loup; et Les Basques. This represents a population of approximately 260,700 based on data acquired from the AANDC (2011) and the Institut de la statistique (2013). The RAPM is adjacent to the Manicouagan RCM as well as the Pessamit Innu Nation which are inhabited by approximately 32,200 (Institut de la statistique, 2013) and 2,900 (AANDC, 2011) people respectively. The population of the Îles-de-la-Madeleine is approximately 12,600. As for the Tawich project, it has been initiated by the Cree Nation of Wemindji (population of ≈ 1,300) and is also intended to include part of the offshore waters of eastern James Bay within the traditional territories of Eastmain (population of ≈ 700 people) and Chisasibi (population of ≈ 4,000).

	PMSSL	RAPM	Îles-de-la-Madeleine	Tawich
Area (km^2)	1 245	543	16, 500 (study area)	> 20,000
Onset of Discussions	Early-1980s	1998	2001	Early-2000s
Initiators	- Parks Canada - Parcs Québec - CEA	- DFO - PNPO	- Parks Canada - MDDELCC (as of 2011)	- WPAP
Status	Designated in 1998	Designated in 2013	Proposed	Proposed
Key Stakeholders	- Coalition for the Saguenay-St. Lawrence Marine Park - CEA - Parcs Québec - Parks Canada - Essipit First Nation - UQAC	- DFO - PNPO - Pessamit First Nation - Manicouagan RCM - MDDELCC	- Parks Canada - APPÎM - UQAR - MDDELCC - Municipalité des Îles-de-la-Madeleine - Comité ZIP des Îles-de-la-Madeleine	- Cree Nation of Wemindji - McGill/ Concordia - Parks Canada - CTA - GCC - CPAWS - MDDELCC
Population[14] adjacent to MPA cases (sources: AANDC, 2011; Institut de la statistique; 2013)	≈ 260,700	≈ 35,100	≈ 12,600	≈ 6,100

Table 5.1 - Characteristics of the four MPA cases in Québec of this research

[14] These population numbers are rounded to the nearest hundred.

5.1. Saguenay-St. Lawrence Marine Park

The PMSSL was established in 1998 after 20 years of research, public support and bilateral negotiations (Canada-Québec, 2009). It is located at the confluence of the Saguenay Fjord and the St. Lawrence Estuary and is intended to protect the entire water column and the substrate to the high tide mark, spanning an area 1,246 km^2 (Canada-Québec, 2009). A timeline of the legal/policy context for the establishment of MPAs in the St-Lawrence Estuary and Gulf in Québec since the late 1980s is presented in Figure 5.1.

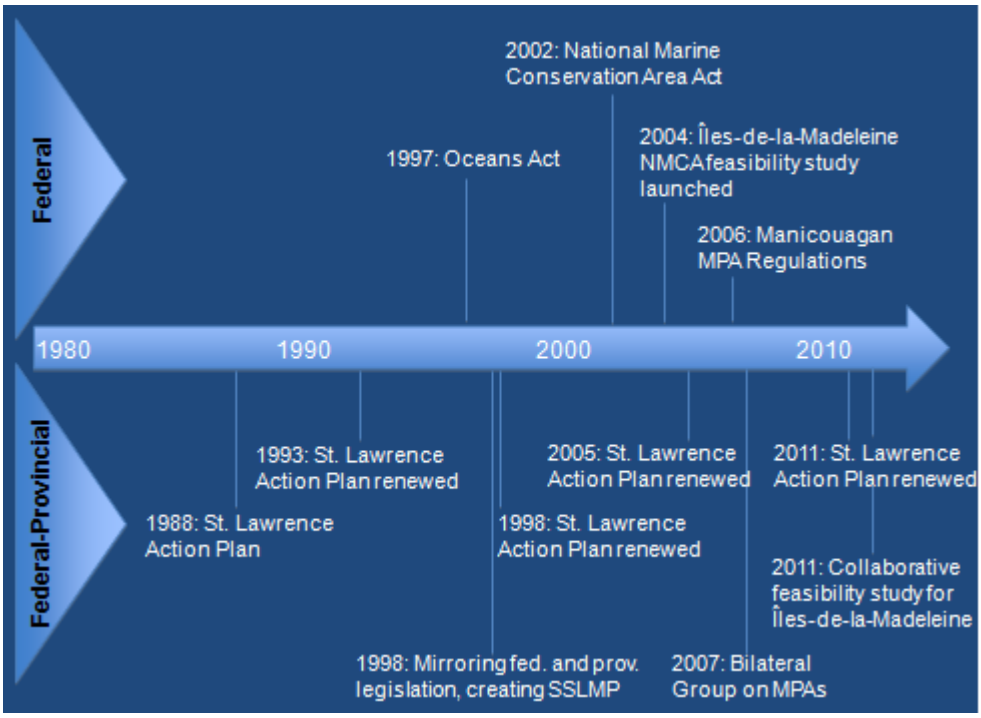

Figure 5.1 - Evolution of the legal context for establishment of MPAs in the St. Lawrence Estuary and Gulf in Québec

An informal study on the beluga whale population at the confluence of the Saguenay River and St. Lawrence Estuary was conducted in the late 1970s by two activists, Leone Pippard and Heather Malcolm (Holmlund & Youngberg, 2003; Informant M, September 9, 2010). Their lobby efforts led to legal protection of belugas in 1979 followed by their designation at the federal level as endangered species in 1983 (Dionne, 1995). Pippard went on to create and direct the Canadian Ecology Advocates[15] (CEA) which lobbied for the creation of the PMSSL until the

[15] As described in Octeau (1999), "the Canadian Ecology Advocates was a registered Canadian charity" directed by Leone Pippard.

late 1990s. Two years earlier, the Canadian Parks Service conducted its first study of the area at the confluence of the Saguenay and St. Lawrence rivers (Dionne, 1995; Octeau, 1999).

During the early 1980s, environmental activists and scientists increasingly recognized the urgent need to protect this beluga whale population mainly from toxic pollution (e.g. Canada-Québec, 2009). A four year national marine park establishment feasibility study was initiated in 1985, which consisted of inventorying biological and physical resources as well as social and economic impacts assessments of the potential park project (Dionne, 1995; Octeau, 1999). The first public information meeting took place in late 1987 to gather opinions on the study (Dionne, 1995; Octeau, 1999).

A one day workshop with representatives from the federal and provincial governments and the World Wildlife Fund (Canada) took place the previous year in Québec City, organized by L. Pippard (Informant M, September 9, 2010). The purpose of that workshop was to discuss the PMSSL project especially in terms of active participation mechanisms that should be included (CEA, 1991). According to L. Pippard, neither the federal or provincial government representatives were open-minded to the idea (Informant M, September 9, 2010). For this reason, she created the CEA in 1987 to facilitate, with the help of a representative from Greenpeace Canada, the creation of the Coalition pour le parc marin du Saguenay–Saint-Laurent (the Coalition hereafter), which united 27 regional stakeholder groups wishing to pressure the provincial and federal governments to accelerate the creation of PMSSL (CEA, 1991; Octeau, 1999; Informant M, September 9, 2010).

In response to increasing international concern for the beluga population, 300 people (including 100 scientists) gathered in Tadoussac in 1988 for the International Forum for the Future of the Beluga (Prescott & Gauquelin, 1990). The objective was to better understand the status of the species and the reasons for its decline. One of the recommendations generated by this Forum was the establishment of the PMSSL (Prescott & Gauquelin, 1990).

In June of 1988, former Canadian Prime Minister Brian Mulroney launched the inter-ministerial *St. Lawrence Action Plan* with the aim of decreasing pollution levels in both the Saguenay and St. Lawrence Rivers (Dionne, 1995; Octeau, 1999; Canada-Québec, 2013). One objective of the *St. Lawrence Action Plan* was to create a marine park at the confluence of the two rivers and raise public awareness about the beluga whales for which a $7 million budget was allocated by the federal government (Dionne, 1995; Octeau, 1999). After some initial momentum

following this announcement, both the federal and provincial governments stalled activity due to jurisdictional disagreements. In response, pressure and lobby tactics from the Coalition and CEA intensified which succeeded in getting the project moving again; soon after the federal and provincial governments started negotiating the establishment of the PMSSL (CEA, 1991; Dionne, 1995; Octeau, 1999).

After two years of ongoing bilateral negotiations, an agreement was jointly signed in 1990 by the two levels of government to define the boundaries and create the PMSSL (Octeau, 1999; Canada-Québec, 2007, 2009). According to this agreement, the park would be "created through the adoption of the legislative measures and regulations respecting the jurisdiction of the governments of Canada and Québec" (Octeau, 1999, p. 82). A harmonization committee with representatives from both parties was put in place at the same time to support the negotiations (Dionne, 1995; Octeau, 1999; Canada-Québec, 2009).

In November 1990, a joint federal/provincial public consultation took place to present the proposed boundaries of the PMSSL (Dionne, 1995; Octeau, 1999). In March of the following year, a proposal for an active public participation park planning program was drafted by the CEA (1991) and sent to the two levels of government. It did not gain support but two observer seats on the harmonization committee were created in June 1992 and filled by members of the Coalition (which was dissolved in November of that year) (Octeau, 1999). Around the same time, the two governments created a consultation committee to gather perceptions of the local and regional communities. A third joint public consultation was conducted between April and November 1993 on the new boundaries and the PMSSL preliminary management plan. In January 1995, the PMSSL management plan was completed by the park planners (Dionne, 1995; Octeau, 1999).

The Coordination Committee, consisting of equal representation from the federal and provincial governments as well as regional representatives, was formed in early 1996 to implement the PMSSL management plan (replacing the consultation committee). It met for the first time in April 1997 (Dionne, 1995; Octeau, 1999; Canada-Québec, 2009). Later that year, two bills were approved that legally created the PMSSL: Bill 86 by Québec's National Assembly (June 5th, 1997); and Bill C-7 in the House of Commons of Canada (December 10th, 1997). Thus, the PMSSL was officially established in June 1998 following 20 years of complex bilateral negotiations, and considerable support from the wider public as well as various stakeholders. The implementation and management of the PMSSL has been conducted on-the-ground by Parks

Canada and Parcs Québec while decisions are made within the Coordination Committee (Canada-Québec, 2009; Informant O, January 17, 2012).

Biodiversity Context

The oceanographic phenomena occurring at the confluence of the Saguenay Fjord and the St. Lawrence Estuary, also the head of the Laurentian Channel, enhance cold water upwells making it an extremely rich marine habitat (Canada-Québec, 2007). These conditions promote primary production and lead to zooplankton flourishing in the water column. In turn, this attracts a great diversity of species (e.g. Ingram, 1975; Therriault et al., 1990; Canada-Québec, 2009). To date, nine marine mammal species have been observed regularly: three pinniped and six cetacean species. The beluga whale and the harbour seal are present in the park waters throughout the year (Parks Canada & Parcs Québec, n.d.). Seventy-nine fish species have been counted as well as many crustacean and algae species. The lands adjacent to the park and islands attract more than 150 bird species that mainly feed on fish and invertebrates (Parks Canada & Parcs Québec, n.d.).

Even though the PMSSL boasts a productive marine environment, there are 6 species present in the park waters that are considered at risk by the COSEWIC (COSEWIC, n.d.). Table 5.2 details the status of each species at risk. In the early 1980s, a time when the St Lawrence River was becoming increasingly polluted, the beluga whale became a flagship species to advocate for the protection of the river (Dionne, 1995; Octeau, 1999; Parks Canada & Parcs Québec, n.d.). Between the 1900s and the 1980s, its population decreased from 5,000 to 1,000 individuals and conservation measures were much needed for recovery from pollution and intensive hunting activities (Parks Canada & Parcs Québec, n.d.). The establishment of the PMSSL was largely due to sustained lobbying for the protection of the beluga whales by regional stakeholder groups and committed individuals (Octeau, 1999; Canada-Québec, 2007; Informant M, September 9, 2010).

Species at Risk	Status
Blue Whale - Atlantic population	Endangered
Atlantic - Laurentian North population	Endangered
Beluga Whale - St. Lawrence River population	Threatened
Barrow's Goldeneye – Eastern population	Special Concern
Harbour Porpoise - Northwest Atlantic population	Special Concern
Fin Whale - Atlantic population	Special Concern

Table 5.2 - Species at Risk observed in the PMSSL (data from COSEWIC (n.d.))

Social and Cultural Context

The discovery of seal bones on the North Shore of the St. Lawrence River suggests that indigenous hunters were present possibly 8,000 years ago, conducting subsistence harvesting of a diversity of marine resources (Plourde, 2003 cited in Canada-Québec, 2007) but never big whales (Canada-Québec, 2010). During the 16th century the Basques arrived mainly to fish Atlantic cod. At that time, fur trading between indigenous peoples and the Europeans became a thriving operation. By the early 17th century, the mouth of the Saguenay River had become the most important fur trading site in North America, and the Montagnais (now Innu) tribe of Tadoussac were the main traders with the Europeans. Eventually, the Basques learned to hunt whales and used their blubber for oil to light their homes and tanneries (Canada-Québec, 2010). During the French occupation (1608-1760), the principal activity in the area was fishing, mainly for Atlantic cod. Marine mammal hunting in the estuary was substantial throughout the 17th and 18th century and individuals continued to hunt beluga whales until the mid-1900s (Canada-Québec, 2007, 2009).

From the 17th to the 19th century, marine fauna remained an important subsistence activity for First Nations in the area. They fished for salmon and hunted marine birds and seals from spring to fall. Beginning in the 18th century, many Innu families began to winter in the Escoumins area, located on the North Shore of the St. Lawrence River near Tadoussac, where they hunted seals (Canada-Québec, 2010).

Since 1892, the Innu from the Escoumins area have been confined to a reserve. However, to this day, they continue to practice their traditional activities including migratory bird hunting in the spring and fall, seal hunting, moose hunting, trapping and fishing. Furthermore, their culture is very connected to the land and the St. Lawrence River (Conseil de bande des

Escoumins, 1992). In their 1992 brief to the federal government, members of the former Escoumins (now named Essipit) Band Council declared their openness to the PMSSL project provided their traditional activities were respected, they were represented in the management of the park, and they were able to gain economically from the park establishment (Conseil de bande des Escoumins, 1992).

Economic Context

The 19th century marked the beginning of forestry operations and industrialization in the region, which reduced the old traditions of maritime activities. Marine traffic greatly increased to accommodate the forestry industry, which relied entirely on waterways for transport. Furthermore, cruise ships regularly went back and forth, sailing all the way to the Great Lakes. Lighthouses were installed to mark shipping lanes. The Great Lakes St. Lawrence Seaway opened in 1959. Other new industries were established along the shores of the St. Lawrence Estuary including mining and aluminum refining (Noel, 1994; Canada-Québec, 2009).

This era led to high levels of pollution in the St. Lawrence Estuary (Noel, 1994). Along the Saguenay River fifteen new dams were created to provide electric power to pulp and paper mills and aluminum smelters. These industries discharged high levels of industrial waste contaminating the entire food chain (Noel, 1994). In response, as mentioned above, the government of Canada launched the *St. Lawrence Action Plan* in the late 1980s as a concerted effort to restore and conserve the river with the government of Québec (Canada-Québec, 2013).

Whale watching greatly increased in the region in the 1980s, which generated major economic benefits and heightened marine public awareness (Canada-Québec, 2009). Local people are very aware of the value of ecotourism in the region, and are generally supportive of initiatives related to the conservation of the marine environment, particularly those linked to the development of sustainable industries. Fishing and forestry activities are less central today but remain part of the regional economy (Canada-Québec, 2009).

5.2. Réserve Aquatique Projetée de Manicouagan

The RAPM is located on the North shore of the Lower St. Lawrence Estuary, between the Betsiamites and Manicouagan river outflows, and is a part of the United Nations Educational, Scientific and Cultural Organization (UNESCO) Manicouagan-Uapishka World Biosphere Reserve (DFO, 2011b; Gouvernement du Québec, 2013). The area of the RAPM is 712 km^2 and

"includes the foreshore of the Manicouagan peninsula, adjacent waters to a depth of 300 meters and the first ten meters of the seabed" (Gouvernement du Québec, 2013, p. 3). Before its official creation, the RAPM was initially a DFO MPA Area of Interest named Manicouagan Peninsula (Technical Committee, 2001; DFO, 2011b).

Shortly after the passing of the *Oceans Act* in 1997, DFO went on provincial tours across the country to present their new MPA program under this act and to solicit pilot MPA projects (Technical Committee, 2001; DFO, 2011b; Informant U, August 23, 2010; Informant F, March 25, 2011). The PNPO was one of the organizations that proposed a MPA initiative to DFO (Technical Committee, 2001). The latter, known formerly as the Manicouagan Peninsula MPA Area of Interest (now the RAPM), was first put forward in mid-1998 (Technical Committee, 2001). It was selected as a pilot MPA project for Québec mostly because of its high marine biodiversity and its social acceptability by surrounding communities (Technical Committee, 2001; DFO, 2011b). It was agreed that the consultation of communities in the region and active participation of representatives from numerous stakeholder groups was required in the decision-making process (Technical Committee, 2001).

In early 1999, a biophysical and socioeconomic characterization study was commissioned by DFO to determine the existing knowledge on the area as well as the potential resource use conflicts that could emerge (Technical Committee, 2001; Informant U, August 23, 2010). Later that year, a participative introductory workshop took place to define the goal and objectives of the MPA project with regional key stakeholders. It was decided by those present that a smaller technical committee would be created to integrate scientific, local and/or traditional knowledge in a draft preliminary management plan that would then be presented for public consultation. Communication tools would then be developed to enhance awareness among the regional human population of the MPA project and the biodiversity of this marine area (Technical Committee, 2001).

The technical committee was comprised of representatives from the PNPO, the Manicouagan Regional County Municipality (RCM), the Betsiamites (now Pessamit) Band Council and DFO, who met on numerous occasions to draft a preliminary management plan, which identified the threats, conservation objectives and specific management steps for the MPA including (Technical Committee, 2001, 2002). A larger group of regional stakeholders met with the technical committee on a few occasions between June 2000 and January 2001 to discuss the

advancement of the preliminary management plan and to share their concerns/opinions. They provided feedback on the entire draft, at which time the technical committee revised it a final time to incorporate their comments (Technical Committee, 2001, 2002).

In spring 2001, pre-consultations on the preliminary management plan began with the five municipal councils of the Manicouagan peninsula and the Pessamit Band Council (Technical Committee, 2001). The plan was presented to politicians and permission was sought to conduct a broad public consultation in each area. With their consent, five evening public hearings subsequently took place over separate evenings in November and December 2001 across the Manicouagan peninsula (Technical Committee, 2001, 2002). Many revisions were made to the preliminary management plan based on these consultations (see Technical Committee, 2001). Clear explanations were provided for any stakeholder comments omitted from the final plan (Technical Committee, 2001).

A larger working committee representing more stakeholders was created in 2003 to draft the project regulations as required by DFO (Informant U, August 23, 2010; Informant E, January 27, 2011; Informant F, March 25, 2011). In 2005, DFO received legal advice indicating that the area between the high and low tide mark could not be legally included in the MPA because it is considered a provincial jurisdiction. This section of the MPA project was subsequently withdrawn but many stakeholder groups were disappointed at this development as much biodiversity is found within the intertidal zone. Eventually, an arrangement was made with the MDDELCC to protect the intertidal zone under a provincial PA designation (Informant U, August 23, 2010; Informant E, January 27, 2011; Informant F, March 25, 2011).

As is required, the Regulations of the Manicouagan Peninsula MPA project were pre-published in the Canada Gazette – Part One for a 30-day consultation in September 2006 (Government of Canada, 2006). In response, the government of Québec declared its dissatisfaction with the Regulations mostly due to offshore jurisdictional disagreements and requested that the federal government put on hold its active MPA projects in the St. Lawrence River/Gulf (i.e. DFO's former Manicouagan Peninsula MPA project and the Parks Canada's former Îles-de-la-Madeleine NMCA project) (SNAP, 2010; Informant E, January 27, 2011; Informant I, January 27, 2011; Informant F, March 25, 2011). Towards the end of 2006, the government of Québec proposed the creation of the Bilateral Group to address cross-jurisdictional and cross-sectoral conflicts regarding MPA establishment in Québec (SNAP, 2010;

Informant E, January 27, 2011; Informant I, January 27, 2011). The Bilateral Group was comprised of representatives from three federal ministries and three provincial ministries and began meeting in 2007 (SNAP, 2010; Informant E, January 27, 2011; Informant I, January 27, 2011).

In 2007 and 2008, the Bilateral Group worked and agreed on a coordinated approach for the establishment of MPAs in Québec (Informant E, January 27, 2011; Informant I, January 27, 2011; Informant F, March 25, 2011). The former Manicouagan Peninsula MPA project initiators, DFO and the PNPO, attempted to apply the coordinated approach with representatives from the MDDELCC and made modifications to the project regulations during 2008. Regional stakeholders were consulted on the new regulations at the end of 2008 and early 2009. The coordinated approach only worked in theory because not all the jurisdictional disagreements had been resolved and the progress of the project slowed considerably (Informant E, January 27, 2011; Informant I, January 27, 2011; Informant F, March 25, 2011). From then on, local people involved with the PNPO received limited updates from DFO because discussions with the province were happening at a high political level and the original DFO field representatives did not know themselves what was occurring (Informant U, August 23, 2010).

For the next few years, there were extended discussions and failed attempts within the Bilateral Group framework to achieve a compromise between DFO and the MDDELCC (Informant E, January 27, 2011; Informant I, January 27, 2011; Informant F, March 25, 2011). It was finally decided that the only way forward was for the MDDELCC to take the lead of the project (sometime in late-2011) with the informal support of DFO (mainly in terms of its scientific expertise) (Informant E, January 27, 2011; Informant F, March 25, 2011). Less than two years later, the government of Québec publicly announced the creation of the RAPM (MDDEFP, 2013).

Biodiversity Context

This Manicouagan Peninsula area was initially selected by DFO as a MPA Area of Interest in 1998, among other projects, in large part because of its strong biological productivity and very diverse marine and coastal habitats (Technical Committee, 2001). As such, the RAPM includes “the estuaries of three rivers (Manicouagan, Outardes and Betsiamites), salt marshes, sandy flats, eelgrass beds, islands and seabeds” (Gouvernement du Québec, 2013, p. 4).

The confluence of the freshwater from the Betsiamites River, Outardes River and Manicouagan River into the St. Lawrence Estuary saltwater, off the shores of the Manicouagan Peninsula, produces desirable conditions for primary production (Technical Committee, 2001; DFO, 2011b; Gouvernement du Québec, 2013). This productivity, combined with water salinity and temperature in the area, enhances the production of zooplankton. DFO conducted benthic community studies between 2006 and 2008 and found a relatively high diversity of benthic fauna (Technical Committee, 2001; DFO, 2011b; Gouvernement du Québec, 2013).

A large number of fish and invertebrate species are found within the RAPM "including softshell clam, snow crab, northern shrimp and Greenland halibut" (Gouvernement du Québec, 2013, p. 5). More than ten marine mammal species are frequently observed within the RAPM including the harbour seal, which uses the intertidal to calve and forage (Technical Committee, 2001; Gouvernement du Québec, 2013). Many species of shorebirds as well as aquatic and migrating birds frequent the area. The Barrow's Goldeneyes is designated by COSEWIC (n.d.) as a species of special concern (Gouvernement du Québec, 2013).

Social and Cultural Context

The Manicouagan Peninsula counts four town municipalities (Pointe-aux-Outardes, Chute-aux-Outardes, Pointe-Lebel and Ragueneau) and the Pessamit Innu Nation Council. The Manicouagan RCM is the regional government body. I did not find much information pertaining to the social and cultural context of the Manicouagan Peninsula.

What is generally known is that indigenous peoples have been present on the St. Lawrence River north coast for thousands of years (Lacoursière et al., 2011). Members of the Pessamit Nation still hunt and fish for traditional uses (Technical Committee, 2001; Gouvernement du Québec, 2013). Salmon fishing has been greatly hindered by the development of hydroelectric dams in the upstream portions of the three rivers that flow into the RAPM (Informant G, August 24, 2010). Over time, these dams have led to significant changes in water flows and sedimentation creating new sandbanks and water diversions (DFO, 2011b). Additionally, local non-indigenous clam picking and fishing occurs along the shoreline of the Manicouagan Peninsula (Technical Committee, 2001).

Economic Context

The RAPM is subject to high levels of shipping activities since the Baie-Comeau port complex is located nearby in the North-East direction (DFO, 2011b). Moderate levels of commercial fishing takes place and species caught include snow crab, waved whelk, Greenland halibut, northern shrimp and Stimpson's surf clam. Recreational clam harvesting and boating occur during the summer (DFO, 2011b). Furthermore, hydroelectric dams have been constructed upstream of the three rivers that flow into the RAPM since the 1960s (Gouvernement du Québec, 2013).

5.3. Îles-de-la-Madeleine MPA Project

The Îles-de-la-Madeleine are a strip of islands of Québec jurisdiction located within the Îles-de-la-Madeleine Shallows Plateau area, part of the St. Lawrence Gulf between Prince Edward Island and Newfoundland (Canada-Québec, 2014). An MPA project surrounding the Îles-de-la-Madeleine and covering an area of 17,000 km^2 was first approved as a potential federal project in 2006 but has now become a collaborative initiative with Québec (Canada-Québec, 2014).

The project was initially discussed by Parks Canada in the early 2000s as a potential NMCA (Poirier, 2006; Informant J, October 7, 2010). The government of Canada officially launched the Îles-de-la-Madeleine NMCA feasibility study, covering an area of 5,000 km^2, supported by a $1 million budget in March 2004 (Parks Canada, 2004; Poirier, 2006). The objective of this project was both to protect the marine ecosystem and to allow sustainable human activities.

At the end of 2005, Parks Canada hired an employee to assist with the project at the local level (Informant J, October 7, 2010). In the beginning, he mainly conducted informational meetings with individuals and stakeholder groups (Informant J, October 7, 2010). His role was then to facilitate the study process by putting in place a consultative committee with stakeholder group representatives and holding public information sessions (Informant J, October 7, 2010). This did not take place because the project was put on hold as part of the fall-out from DFO's regulations on the former Manicouagan Peninsula MPA being published in the Canada Gazette – Part One (discussed in Section 5.2) (Government of Canada, 2006).

Following negotiations by members of the Bilateral Group, the governments of Canada and Québec jointly launched a new feasibility study covering on the establishment of a MPA

around the Îles de la Madeleine the in December 2011 (Canada-Québec, 2014). With this agreement, both governments reiterated "their mutual interest to ensure adequate protection of marine biodiversity in the Gulf of St. Lawrence" (Canada-Québec, 2014). The feasibility study was led by the Université du Québec à Rimouski (UQAR) and its affiliated Centre de recherche sur les milieux insulaires et maritimes (CERMIM) between May 2012 and April 2014 (the findings are not available to the general public yet). Two key components of the study were community participation and the creation of a consultation committee to represent local and regional stakeholder interests (Canada-Québec, 2014).

Biodiversity Context

The Îles-de-la-Madeleine Shelf constitutes an important feeding area for marine species as well as a hatching habitat for numerous fish species. Furthermore, 300 bird species can be observed. For more details, the reader is directed to Poirier (2006) that provides an overview of the Îles-de-la-Madeleine species and ecosystems. Furthermore, when the results from the collaborative and inter-jurisdictional Îles-de-la-Madeleine MPA Feasibility Study are made publicly available, they will provide a more comprehensive account.

Social and Cultural Context

There is currently no indigenous occupancy on the Îles-de-la-Madeleine but the Micmacs people were present when European settlers arrived in the 17th century (Mimeault, 2002).

There are many recreational activities that are practiced by local people within the Îles-de-la-Madeleine proposed MPA (Poirier, 2006). Recreational fishing is mainly conducted within more sheltered areas between the islands (Poirier, 2006). Artisanal harvesting of mollusks is a very popular activity with a long history within the communities located along the coast (Poirier, 2006). Migratory bird hunting is also practiced along the coast and allowed for diversified food sources in the past. However, catches have drastically decreased over the last few decades (Poirier, 2006).

Economic Context

The economic development of the Îles-de-la-Madeleine has greatly relied on commercial fishing, tourism activities and shipping (Poirier, 2006). The majority of the commercial species fished are invertebrates such as the popular lobster (Poirier, 2006). Numerous tourism activities

occur mainly during the summer including boating, fishing, scuba diving, kite-surfing, wildlife observation, and beach activities (Poirier, 2006). The St. Lawrence Gulf is a highly important seaway into the northeast of North America. Due to its insular location, the Îles-de-la-Madeleine people are heavily reliant on shipping for exportation (i.e. sea products), importation of goods and tourist transportation (mainly in summer) (Poirier, 2006). The Old Harry oil deposit, located 80 km northeast of the islands, could be exploited in the future, which would likely impact the local economy (e.g. SNAP, 2010).

5.4. Tawich Project

The proposed Tawich is located off the east coast of James Bay and spans approximately 20,000 km^2 (Mulrennan et al., 2009). Parks Canada has shown interest in the project and has been in touch intermittently with members of the WPAP since late-2008 (Mulrennan et al., 2012).

The WPAP initially developed in 2001 as a partnership between a multi-disciplinary academic team and the Cree Nation of Wemindji, with Dr. Colin Scott (McGill University) and former Chief of the Cree Nation of Wemindji as co-directors (Mulrennan et al., 2012). Over the years, the partnership expanded and now includes the Wemindji CTA, the GCC, the MDDELCC, Parks Canada and the SNAP (Mulrennan et al., 2012). The initial and still current objective of the WPAP is "to establish a network of protected areas anchored in Cree knowledge of and institutions for land and sea management, to achieve the combined goals of regional sustainability, biodiversity protection, and cultural continuity" (Mulrennan et al., 2012, p. 247).

Two watersheds spared from damming for hydroelectric energy generation were chosen by the Wemindji community as priority terrestrial areas to protect; these are Paakumshumwaau and Maatuuskaau, located in the southern part of Wemindji traditional territory (Mulrennan et al., 2012). It was decided by the Wemindji Band Council, coastal tallymen and CTA in consultation with the WPAP, to undertake the biodiversity reserve provincial designation process. In 2008, the government of Québec announced the creation of the Paakumshumwaau-Maatuuskaau Réserve de Biodiversité Projetée (proposed biodiversity reserve) (Mulrennan et al., 2012).

There was an initial assumption that the PA would have a terrestrial and marine component but due to jurisdictional complexities imposed on the Cree they were forced to

separate the two (Mulrennan et al., 2012). As such, discussions about the Tawich project emerged in the early 2000s among the Wemindji community leadership and coastal tallymen as well as neighbouring communities and the GCC after the Paakumshumwaau-Maatuuskaau biodiversity reserve success (Mulrennan et al., 2012). The focus of these discussions was the potential creation of a MPA that would extend the Paakumshumwaau-Maatuuskaau biodiversity reserve offshore to surround adjacent waters and islands (Mulrennan et al., 2012). Various bio-ecological, cultural and geological surveys were undertaken between 2007 and 2009 (Milligan et al., 2008; Bussières et al., 2008; Scott et al., 2009).

In November 2008, after brief interest from DFO, Parks Canada became the lead agency for the project at the federal level within its NMCA program (M. Mulrennan, personal communication, fall 2009 – summer 2014). The WPAP submitted a formal proposal to Parks Canada to establish the Tawich (Marine) Conservation Area as a joint initiative with the GCC and the coastal Cree Nations of Eastmain and Chisasibi (Mulrennan et al., 2009).

In the meantime, the negotiations of a Cree offshore agreement (for Québec's 10 Cree communities) began after the creation of the Nunavut territory (Informant K, July 19, 2010; Informant S, July 20, 2010). The three parties involved were the Government of Canada, the GCC and the Government of Nunavut, and the objective of the agreement was to officially designate parts of the offshore ownership to the Cree (GCC-Canada-Nunavut, 2009). It took about a decade until the offshore agreement was finally signed in June 2009 (GCC-Canada-Nunavut, 2009), which was followed by the ratification vote in the 10 Cree communities between mid-2009 and mid-2010. The ratification was successful and led to the official signing of the EMRLCA on July 7, 2010, by representatives from AANDC, the GCC and the Government of Nunavut (GCC-Canada-Nunavut, 2010). Since the offshore agreement would provide a regulatory regime, including provisions for MPA creation that would enhance and support the establishment and acceptability of the Tawich, the Cree leadership chose to put the project on hold (≈ mid-2009 to mid-2013) until the EMRLCA was finalized and the supporting regime in place (Informant K, July 19, 2010; Informant S, July 20, 2010).

Chapter 13 of the EMRLCA includes provisions for MPA creation specifically (Section 6.5) and for the institutional establishment of the EMRWB (GCC-Canada-Nunavut, 2010). The membership of the co-management board was finalized in spring 2014 and brings together government representatives from one of the GCC designated organizations as well as from

Nunavut and Canada (Eeyou Marine Region, 2014). In the eventuality the Cree decide to go ahead with the Tawich project, the EMRWB should facilitate the inter-jurisdictional planning discussions. According to Mulrennan et al. (2012), "High-level talks between the GCC and Parks Canada [continue to] indicate strong support for advancing this proposal" (p. 248). However, many years have passed and the Cree now have title to the islands (GCC-Canada-Nunavut, 2010). They are also increasingly interested in alternative models of PA governance, including ICCAs (e.g. Herrmann et al., 2012).

Biodiversity Context

The coastal/marine biodiversity context of Eastern James Bay has seldom been studied in the past. The bio-ecological surveys conducted by members of the WPAP (Milligan et al., 2008; Bussières et al., 2008; Scott et al., 2009) are among the few existing studies.

The Tawich project encompasses "the many streams, rivers and estuaries between the La Grande and Eastmain Rivers not altered by Hydro-Québec's engineering of those rivers" (Mulrennan et al., 2009, p. 1). The South and North Twin Islands are known for their numerous waterfowl nesting area and provide vital habitat for denning and breeding of polar bears (Mulrennan et al., 2009). Many other islands provide habitat for a polar bears and birds as well as other wildlife and flora species (Mulrennan et al., 2009). More details on the biodiversity context of Eastern James Bay are presented in Mulrennan et al. (2009).

Social and Cultural Context

As described by Mulrennan and Scott (2000), the coastal/marine areas offshore of northern Québec are intricately linked to the livelihoods and traditional activities of the Cree and Inuit. As such, "The James Bay Crees have used and managed this marine environment for thousands of years. Customary tenure arrangements, supported by Cree knowledge and management practices, have contributed to the protection of coastal and marine habitats and the sustainable use of associated resources" (Mulrennan et al., 2009, p. 38). For the Cree inhabiting the eastern coast of James Bay, Mulrennan et al. (2009) described the following activities practiced in the past and still in the present:

> (…) the primary coastal activities are waterfowl hunting and fishing, while small game hunting, berry picking and egg collecting in addition to the gathering of water and firewood are more secondary activities. The coastal bays and nearshore islands tend to

> be the focus of these activities but the more distant islands are also used, particularly during the fall waterfowl hunting season. (p. 34-35)

Furthermore, the offshore waters and islands provide a connection to the past for the Wemindji Cree. The *Paakumshumwaashtikw* Bay serves as a commemorative site during the 'Old Factory Gathering' that occurs every summer (Bussières, 2005). As recorded in Mulrennan *et al.* 2009, the event centers around "communal cooking in teepees" (p. 38) and feasting, music and dance, as well as "visits to the nearby burial sites of family members and other historical sites" (p. 38).

Economic Context

Before the construction of year-round roads in the region, the coast of eastern James Bay was almost inaccessible to non-Cree hunter and fishers. However, there are now concerns about outside hunting/fishing pressures along the coast, unaware of Cree customary tenure and rules, leading to disturbance of waterfowls and their local habitats (Mulrennan & Scott, 2000).

The hydro-electric dams upstream of numerous rivers along the eastern coast of James Bay have had a continued impact on marine waters and estuaries (Mulrennan et al. 2009). Furthermore, many mining claims have been designated upstream of these rivers but do not extend into the offshore (Mulrennan et al., 2009)

There have been and are still many industrial development interests from the outside in regards to the territory of Wemindji including mining, transportation infrastructure and hydroelectricity (Mulrennan & Scott, 2005). At the local level, there is much interest in Tawich supporting small scale tourism and cultural heritage protection, including maintenance of offshore subsistence activities and associated knowledge (M. Mulrennan, personal communication, fall 2009 – summer 2014).

Chapter 6. Findings

The research findings from this examination of four Québec MPAs are presented in this chapter. Section 6.1 presents an overview of the findings from the thematic coding analysis in relation to the facilitating mechanisms that emerged from the interviews while section 6.2 describes the five facilitating mechanisms most frequently discussed by informants which sustained their engagement through times of political and administrative setbacks within the seemingly interminable Québec MPA planning process: 1) aboriginal and local community engagement (section 6.2.1); 2) bridging organizations and leadership (section 6.2.2); 3) LEK and TEK used in planning (section 6.2.3) and public education-awareness (section 6.2.4); and 5) transparent communications (section 6.2.5).

6.1. Thematic Analysis of Facilitating Mechanisms Identified in NVivo

The findings that emerged from the thematic analysis conducted during the NVivo coding processes are presented in this section. Sub-themes identified within the overarching facilitating mechanisms theme are the focus the results displayed in the form of tables. The first table (6.1) lists the thirteen facilitating mechanisms sub-themes iteratively identified as well as the number of informants (out of a total of 21) that discussed each mechanism in the NVivo interview coding process. The five facilitating mechanisms for MPA pre-establishment discussed by the most informants are presented in Table 6.2 while Table 6.3 depicts the facilitating mechanisms for each MPA case as identified in the NVivo coding analysis.

Facilitating Mechanisms identified during the NVivo Analysis (alphabetical order)	Number of informants (out of 21) that discussed each mechanism based on NVivo Analysis
Aboriginal and Local Community Engagement	20
Bridging organizations and leadership	19
LEK and TEK Used in Planning	14
Public education-awareness	14
Transparent communications	12
Scientific expertise	11
Lobby pressures	8
Integrated conservation and development	6
2010 Symposium on MPAs in Québec	6
Use of media and opinion polls	5
Bilateral Group on MPAs	4
Resolved aboriginal claims	3
Promise of new jobs	2

Table 6.1 - Fifteen facilitating mechanisms sub-themes iteratively identified and the number of informants (out of 21) that discussed each mechanism based on the NVivo coding analysis

	Five Facilitating Mechanisms most Discussed by the Informants
#1	Aboriginal and Local Community Engagement
#2	Bridging Organizations and Leadership
#3	LEK and TEK Used in Planning
#3	Public Education-Awareness
#5	Transparent Communications

Table 6.2 - Five facilitating mechanisms for MPA pre-establishment most discussed by the informants from the NVivo coding process

Case Studies / Facilitating Mechanisms	PMSSL	RAPM	Îles-de-la-Madeleine (proposed)	Tawich (proposed)
Bridging organizations and leadership	√	√	√	√
Community engagement (local and aboriginal)	√	√	≈	√
Transparent communications	≈	≈		≈
Integration of local ecological knowledge (LEK) and TEK	≈	≈		√
Public education-awareness	√	√	≈	√
Scientific expertise	√	√	√	√
Public consultations	√	√		√
Bilateral group		≈	≈	
Symposium				
Lobby pressures	√	√		≈
Integrated conservation and development	√		√	
Resolved aboriginal claims		√		√
Promises of new jobs	√		√	
Use of media - opinion polls	√			

Table 6.3 - Facilitating mechanisms for each MPA case study as identified in the NVivo coding analysis

6.2. Five Facilitating Mechanisms Most Commonly Discussed by the Informants

These five facilitating mechanisms are presented in descending order of importance, based on the extent to which they were discussed by the informants, in the following 5 sections (summarized in Table 6.4): 1) aboriginal and local community engagement (section 6.2.1); 2) bridging organizations and leadership (section 6.2.2); 3) LEK and TEK used in planning (section 6.2.3) and public education-awareness (section 6.2.4); and 5) transparent communications (section 6.2.5).

Case Studies (until 2011) / Five most Common Facilitating Mechanisms	PMSSL (designated)	RAPM (designated)	Îles-de-la-Madeleine (proposed)	Tawich (proposed)
Community engagement (local and aboriginal) – based on Angell (2005)	Information Consultation	Consultation Involvement	Information Consultation	Involvement Partnership
Bridging organizations and leadership (most influential)	CEA Coalition pour le parc marin du Saguenay–Saint-Laurent	PNPO	CERMIM (UQAR)	WPAP SNAP
Integration of LEK and TEK into planning	133 briefs submitted and reviewed by government MPA planners (including one from Essipit Nation)	60 briefs submitted and reviewed by multi-stakeholder technical committee Innu Aitun stated as one of the broad management objectives	Remains to be seen how local fishermen's knowledge is integrated	Fully anchored in Cree knowledge
Transparent communications	intermittently between early 1980s to 1998	Technical committee meetings between 1999-2006	Meetings between Parks Canada and local stakeholders between 2004-2006	Regular reporting of project leadership at local/regional levels
Public education-awareness	Flagship species: Beluga whale	Community information workshops	limited	Community workshops to discuss the role of MPA for Cree

Table 6.4 - Summary findings of the five most commonly discussed facilitating mechanisms for each MPA case as identified in the NVivo coding analysis

6.2.1. Aboriginal and Local Community Engagement

All the informants interviewed supported the concept of aboriginal and local community engagement in emergent co-governance planning of MPAs during MPA pre-establishment as opposed to older forms of strict top-down conservation (as discussed in Mulrennan et al., 2012), which included stories of dispossession in Canada and Québec (Informant A, July 21, 2010). Without a doubt, both the federal and provincial governments have progressed and adapted their strategies to include public engagement in PA planning and management (e.g. Informant A, July 21, 2010; Informant E, January 27, 2011). However, the levels of participation discussed were not unilateral across the informants. The provincial and federal government agency informants referred to adequate participation mainly as information, education, consultation and sometimes involvement. On the other hand, non-state informants defined their desired participation level as involvement or partnership.

As described in the literature review, there are different levels of public engagement as first presented by Arnstein's (1969) ladder of participation and later built on by others (Angell, 2005). The following levels, based on Angell's (2005) ladder of engagement (see Figure 3.1), were used during pre-establishment of each MPA case: 1) information and consultation for the PMSSL; 2) consultation and involvement for DFO's former Manicouagan Peninsula MPA Area of Interest; 3) information and consultation for the Îles-de-la Madeleine MPA; and 4) involvement and partnership for Tawich.

During the early planning days of the PMSSL, the demands for more public participation in the park planning process occurred in two separate forms. The federal and provincial governments had parallel discussions with the Essipit Band Council and non-indigenous regional stakeholders. The Essipit Band Council felt the MPA creation discussions were undercutting the territorial negotiations that were ongoing between the Band and the Government of Canada (August 16, 2010). In 1992, they submitted a brief to the leading provincial and federal government agencies (Conseil de bande des Escoumins, 1992). According to Informant T (August 16, 2010), this gesture was to clearly state that the Band wanted to be consulted in the MPA process. A year later, the consultative role of the Essipit Band Council in the establishment and management of the PMSSL was negotiated with the provincial and federal governments (Canada-Québec, 1995; Informant T, August 16, 2010).

During the pre-establishment phase, Parcs Québec and Parks Canada consulted with the local and regional population on three occasions, first to present the project and collect public input (1987), second for the park boundary (1990) and finally for the PMSSL management plan (1993) (Octeau, 1999). The public was asked to provide their comments via briefs and public hearings to advise the two levels of governments. There was indeed a difference in expectations from the consultation process; the citizens and Coalition expected an inclusive and iterative process and, for decisions to be made jointly (Informant M, September 9, 2010). Leone Pippard sent a document to both governments outlining a structure for functional and fair public participation but it was not taken into account (Informant M, September 9, 2010). In the interview with Informant M, she stated: "Civil society as a whole is intelligent and does not want to be involved in participation processes that are just there to look nice, without actual substance to them" (September 9, 2010). Between 1990 and 1993, more than one hundred briefs were submitted through the three public consultations and many pointed to the need for more active participation mechanisms (Octeau, 1999; Informant M, September 9, 2010).

The efforts of the governments to address this led to the creation of a Coordinating Committee in 1992, but its role was simply to advise the assigned park planners, both from the federal and provincial side, on input from the regional population relating to the PMSSL project, before the public hearings (Octeau, 1999). Of greater importance was the 1996 creation of a Coordinating Committee formed by the two levels of government once the PMSSL management plan was tabled by them. This Coordinating Committee brought and still brings together government and non-government representatives but the general regional public did not have a say when it was formed. Furthermore, its role was and remains for the representatives to gain consensus on issues relating to the PMSSL and recommend measures to the Canadian Minister of Environment and his/her counterpart at the provincial level, the MDDELCC Minister (Informant O, October 18, 2010; Lequin, 2001).

The consultation process during the PMSSL planning was ahead of its time since PA planning generally took a clear top-down approach in these times. Indeed, the interviewed Parks Canada scientist involved with PMSSL management for over a decade spoke of a very participative approach to the park establishment (Informant L, August 19, 2010). However, higher levels of participation are now widely accepted internationally as supporting better PA conservation outcomes (Borrini-Feyerabend et al., 2013).

The Manicouagan project was proposed by the PNPO in 1998 after DFO went on provincial tours the previous year to present the new MPA program under the *Oceans Act* and to solicit pilot MPA projects. The project was chosen by DFO as Québec's pilot MPA initiative mostly because of its high social acceptability. Indeed, PNPO was created in the early 1980s by a group of citizens to advocate for the conservation of the salt marsh and six other ecosystems at Pointe-aux-Outardes and the local and regional population was mostly supportive. The PNPO efforts were successful and the terrestrial Pointe-aux-Outardes PA (regional) was officially created in 1987 (Informant U, August 23, 2010). Between 1999 and 2006, the engagement level of the regional stakeholders active with planning the Manicouagan MPA project was mainly involvement as described by Informant U: "It was a first for a park project where the indigenous and local were involved" (August 23, 2010).

Once the Manicouagan project was chosen by DFO, a participative introductory workshop took place in 1999 to define the goals and objectives of the MPA project with regional key stakeholders. It was decided by the people present that a technical committee should be put together and have the mandate to integrate scientific, local and/or traditional knowledge and to a draft a preliminary management plan, which would then be submitted for public consultation. The technical committee was composed of representatives from the PNPO, the Manicouagan RCM, the Pessamit Band Council (formerly Betsiamites) and DFO. The technical committee held numerous meetings that were generally prepared and led by the PNPO and DFO representatives. These meetings were productive and respectful based on the perspective of two informants that represented their agency/organization on the technical committee (Informant U, August 23, 2010; Informant R, October 15, 2010). With DFO's approach, there was involvement of stakeholders because more than a few representatives voted to create the technical committee and there were actual discussions and joint decisions made about the future management of the park.

The Manicouagan MPA preliminary management plan was finalized by the technical committee in early 2001 and pre-consultations began in the spring with the 5 municipal councils of the Manicouagan Peninsula and the Pessamit Band Council. The preliminary management plan was presented to the politicians and permission was sought to conduct a broad public consultation in each area. With their consent, five evening public hearings took place in November and December 2001 across the Manicouagan Peninsula. Numerous communication

tools were used to maximize participation, such as info kiosks, brochures, newspaper articles, etc. The public was asked to voice its opinions verbally and/or in a brief. A total of 60 briefs were presented and only three organizations were against the proposed project (Département de techniques d'aménagement cynégétiques et halieutiques du CEGEP de Baie-Comeau, Association des chasseurs de pêcheurs Manic-Outardes and a citizen group). There were many revisions made to the management plan based on the consultations, and clear explanations were provided for stakeholder comments not integrated into the final plan (Technical Committee, 2002; Informant U, August 23, 2010). This pre-establishment phase of the former Manicouagan MPA Area of Interest was evidently more consultative than the previous one.

It was Parks Canada that eventually launched an NMCA project for the Îles-de-la-Madeleine with the announcement of a feasibility study (and budget) in 2004. The public participation approach used in between 2002 and 2006 was educational (Informant J, October 7, 2010). A Parks Canada representative was informally promoting the NMCA project on the islands as early as 2002 by organizing meetings with various individuals and stakeholder groups (coming in from Québec City at certain times of the year) (Informant Q, October 4, 2010; Informant B, October 6, 2010). He evoked potential spill-overs of the project such as positive impacts on aquatic resources and increased opportunities for sustainable tourism. However, numerous local non-government informants stated that the representative adopted an imposing attitude with the local people. They were also frustrated that the feasibility study never materialized and questioned where the allocated budget was spent. Local stakeholders were contacted in 2004 and 2005 to sit on the feasibility study committee but no meetings ever took place because all the Québec MPA projects in the St. Lawrence Estuary and Gulf were stalled in late-2006. Parks Canada didn't make any formal announcement to postpone the study and the stakeholders found out about the jurisdictional disagreement discussions through word of mouth. They became particularly pessimistic when a Park Canada representative continued to informally discuss the project and make contacts on the Islands even when everything was halted. When interviewed, these informants were still annoyed by Park Canada's lack of transparency with local stakeholders and communities, and distrusting of the NMCA establishment process (Informant Q, October 4, 2010; Informant B, October 6, 2010.

There has been an evolution over time, from being exclusively a federal project (as a NMCA) to now being a collaborative approach between Canada and Québec with a 50/50 cost

sharing. Prior to this, Québec had been seeking a leadership role on MPAs rather than encouraging federal proposals, but hadn't shown a financial commitment towards MPA initiatives. After a failed official announcement in November 2010, a joint feasibility study between Parks Canada and MDDELCC was launched in December 2011 (Informant H, January 26, 2011). This proposed study to conserve approximately 16,500 km^2 was conducted mainly by researchers from the Université du Québec à Rimouski (UQAR) and its affiliated CERMIM and was submitted to MDDELCC and Parks Canada in April 2014 (not publicly available yet). A consultative committee formed in mid-2012 with representatives from 11 stakeholder groups had the mandate to advise the steering committee of the study (Informant Q, October 4, 2010). This process does not seem more participative than a consultative approach to public participation as defined by the fourth rung of Angell's ladder of engagement (see Figure 3.1). However, this is outside the data gathering timeframe of this study. In terms of local community participation, the study website states that various means will be used to inform the residents of the study's progress and allow them to voice their concerns. This is also considered a consultative approach to public participation.

Tawich has the highest level of participation of the four case studies, based on Angell's (2005 adapted from Arnstein, 1969) ladder of engagement (Figure 3.1), because the project was initiated by the Wemindji Cree Nation and the community has managed to keep a firm handle on the MPA pre-establishment decision-making process to date. Thus, it is considered involvement/partnership as defined by the second rung of Angell's ladder of engagement (see Figure 3.1), which includes Parks Canada since the marine waters of James Bay are of federal jurisdiction (discussed in section 2.1) and many other players who are now part of the WPAP (see section 1.2.1).

The Wemindji people were involved in the decision-making process since the early discussions with tallymen and during community workshops led by local leaders (Mulrennan et al., 2012). During the summer of 2007, a workshop took place with Wemindji community members to present the progress of the MPA project. The workshop allowed for a better understanding of community concerns and aspirations and revealed community support for a more extensive marine protected area (approximately 20,000 km^2 potentially spanning to other Cree community marine territories). Informant S explains the importance of community participation in the following quote: "[Indigenous] peoples were not consulted [in the past] but

times have evolved and now we have a say. If you get people involved; what you're doing is creating a sense of ownership" (July 20, 2010). The other two coastal communities that are adjacent to the Tawich area proposed area the Eastmain and Chisasibi Cree nations were approached by the former Wemindji Chief and invited to Québec's 1st MPA Symposium as an inclusiveness gesture (Informant A, July 21, 2010). A further round of consultations, involving each of the coastal Cree communities, is being conducted in summer 2014 (M. Mulrennan, personal communication, fall 2009 – summer 2014).

6.2.2. Bridging Organizations and Leadership

Nearly all the informants recalled the crucial roles of bridging organizations and/or visionary leaders within pre-establishment emerging co-governance arrangements during one or more of the MPA case studies they were involved with. These roles involved helping non-state stakeholders navigate governmental procedures and increasing trust, cooperation and resilience. Furthermore, it is evident from the interviews that non-state stakeholders often do not comprehend the actions of governmental agencies and the complexity of the legacy of jurisdictional uncertainties, which are very difficult to resolve. In this context, bridging organizations can demystify governmental procedures and reassure stakeholders. Examples from three of the case studies are provided below.

In March 1988, the Coalition uniting 27 regional stakeholders was created (Octeau, 1999; Canada-Québec, 2009) with the support of the CEA and Greenpeace (Informant M, September 9, 2010). The Coalition positioned itself among the local/regional communities, the federal government and government of Québec to push the PMSSL planning forward and ensure public participation during the process. It also conducted an opinion poll[16] to demonstrate the huge support for the project and pressure federal and provincial politicians to resolve their jurisdictional disagreements. The CEA was instrumental in assisting the Coalition to decide when to pressure the federal and provincial governments without getting tangled in jurisdictional conflicts (Informant M, September 9, 2010).

In Manicouagan, the PNPO had established a terrestrial park in the 1980s and had been accepted by the local people for quite some time. This created political legitimacy over the years. It also had credibility with the local population and other environmental organizations. When the

[16] The poll showed that 83% of the surveyed regional population supported the establishment of the PMSSL and that 68% wanted it to take place as soon as possible (CEA, 1991).

Manicouagan MPA project was envisioned, PNPO acted as a liaison between the MPA Coordinating Committee and the local population (Informant U, August 23, 2010).

The positive impacts of two key visionary leaders involved with the Tawich project, within a larger context of PA creation based in Cree knowledge and institutions, are discussed here. The WPAP was created in the early 2000s as a research partnership under the leadership of Rodney Mark, former Chief of the Wemindji First Nation and Dr. C. Scott, Principal Investigator of a SSHRC funded Community-University Research Alliance (CURA) project. R. Mark had become aware of the need to protect his traditional lands and waters at an early age and wanted to make it a priority once he got elected to the band council. Dr. Scott had been conducting anthropological research in Wemindji mainly with elder hunters for numerous decades and had acquired the trust and respect of the community. As described by Informant S (July 20, 2010), "He was just a lad when he first came around in the 1970s. The people know him, he has a traditional name. When the elders talk together, they use [his] traditional name and everybody knows who they're talking about". Together, they decided the first step was to talk with the tallymen and consult the users of the land. They developed the novel idea to add a layer of provincial protection to a section of Wemindji's traditional lands and sought the approval of tallymen. The terrestrial Paakumshumwaau-Maatuuskaau Réserve de Biodiversité Projetée was created in May 2008.

The last example presents the bridging role that the SNAP has played at certain specific times during the planning of Tawich mainly in terms of facilitating communications between WPAP and federal and provincial government agencies involved in the process. In February 2007, the WPAP discussed the MPA project with DFO in Mont-Joli, Québec. However DFO explained that James Bay and Hudson Bay do not fall within their LOMA program, which would make it nearly impossible for DFO to take on this MPA project. As discussions had already commenced with DFO, it would have been of bad faith to begin serious discussions with Parks Canada (Informant C, October 18, 2010). In the months that followed, the WPAP team developed a proposal for Tawich (Mulrennan et al., 2009). The SNAP then helped the WPAP to set up a meeting with high level officials at Parks Canada, MDDELCC, the GCC and Government of Nunavut and representatives from the Wemindji and Eastmain Band Councils Nations. During this meeting in November 2008, the Tawich proposal drafted by the WPAP was presented to federal and provincial agencies. Through constructive discussions, DFO formally

relinquished its interest to Parks Canada (Informant C, October 18, 2010). The SNAP was pivotal in organizing this meeting especially through its connections at the national CPAWS network, Parks Canada and MDDELCC (Informant C, October 18, 2010). The SNAP/CPAWS have maintained their connection with members of the WPAP and play an important role in keeping Tawich on the political radar – annual reports, including recent CPAWS report, provide updates on progress. Most recently, contact between the WPAP and the SNAP has been in relation to preparation of a Cree presentation at this WPC (November, 2014) taking place in Sydney, Australia (M. Mulrennan, personal communication, fall 2009 – summer 2014).

6.2.3. The Integration of LEK and TEK

The majority of the informants and stakeholder documents (e.g. CPAWS, 2008, 2009) within this study recognized the importance of integrating LEK and TEK in co-governance MPA arrangements. The emerging co-management MPA initiatives in this study integrated LEK and TEK at different levels.

The three MPA initiatives discussed in terms of LEK are the PMSSL as well as the Manicouagan and Îles-de-la-Madeleine MPA projects. Between 1990 and 1993, the provincial and federal government agencies leading the PMSSL planning, Parks Canada and Parcs Québec, solicited input from all the public during three consultations (Informant L, August 19, 2010). Indeed, 133 briefs were submitted and reviewed including one by the Essipit Band Council with some brief recommendations on how to integrate LEK into the PMSSL planning process. It was a similar situation for the Manicouagan case, but the briefs were presented to and revised by the multi-stakeholder technical committee. The PNPO worked for the best interests of the local communities by working to include the knowledge and interests of the clam diggers active around the Manicouagan peninsula (Informant U, August 23, 2010). In the context on Îles-de-la-Madeleine, a few informants stated that local knowledge, especially from fishermen, should be included if and when the feasibility study took place (Informant B, October 6, 2010; Informant N, October 7, 2010). Since the data gathering phase for this thesis ended in 2011, I cannot comment on whether this occurred during the completion of the 2012-2014 feasibility study.

The three MPA cases with aboriginal presence and discussed here in regards to integrating TEK are the PMSSL, the Manicouagan project and Tawich project. In the case of the PMSSL, the 1992 brief submitted to the Essipit Band Council addressed some aspects of TEK

but it was not a core consideration. Understandably, the Band was fighting to be recognized as a nation at the time and wanted to be included in the park planning process. It seems the Band was less concerned at this stage with the official integration of TEK into the process (Informant T, August 16, 2010).

In the Manicouagan case, two representative from the Pessamit Band Council who sat on the technical committee brought issues to meetings held to draft the preliminary management plan. Broad management orientations were set early on including the respect and integration of Innu traditional activities (Innu Aitun), which were transposed to the final management plan. However, this project under the leadership of DFO never formalized due to jurisdictional conflicts (discussed in section 5.2).

The Tawich project is the only case in this study that is fully anchored in Cree TEK. All the early planning decisions pertaining to this project were taken by the Wemindji tallymen and included many families/traplines (Informant K, July 19, 2010). The project continues to be anchored in TEK but decisions about Tawich are now expected to be taken primarily within the EMRWB institutional structure; consultations with coastal Cree communities, in particular, will continue to inform Cree positions on the EMRWB (M. Mulrennan, personal communication, fall 2009 – summer 2014).

6.2.4. Public Education-Awareness

The need for more public education-awareness programs relating to local marine ecosystems and the purpose and functioning of MPAs was discussed by approximately half of the informants from all backgrounds as a means to undo many misconceptions that people have about MPAs and enhance the sense of ownership over marine waters of the Québec population in general. According to these informants, this would eventually lead to more trust and cooperation between non-state actors within emerging co-governance arrangements during pre-establishment of MPA initiatives. Additionally, Informant M (September 9, 2010) stated that informed and empowered citizens concerned about the conservation and sustainable development of their home coasts, are able to actively participate and have their voices heard in emerging co-governance arrangements during MPA pre-establishment.

Numerous communication tools (e.g. brochures, newspaper articles) were used during the planning of the three MPA initiatives located in the St. Lawrence Estuary and Gulf. The main

objective of these tools was to inform and educate the regional population about the reasons to protect a specific marine area prior to a public consultation. This allowed the public to develop informed opinions and concerns. However, some informants (Informant J, October 7, 2010) were able to have a larger view of MPA establishment in Québec and described the need for greater education in schools about the deteriorating state of marine ecosystems and the need for their sustainable management through various tools such as MPAs. This would, according to one informant, help address the general 'out of sight/out of mind' attitude of the Québécois people in regards to their marine environments and hopefully lead to public mobilization and stewardship for them (Informant J, October 7, 2010). Furthermore, representatives from ENGOs (Informant H, January 26, 2011; Informant M, October 7, 2010) explained that lack of awareness and knowledge by members of the public lowers public pressure on governments to sustainably manage marine ecosystems, thus lowering political will to create networks of MPAs.

Two examples portray the positive feedback that can occur following a public education-awareness campaign during MPA pre-establishment. In the case of the PMSSL, the deteriorating health and habitat of the beluga, a flagship species, was used to raise wide-scale awareness about the pollution of the St. Lawrence and Saguenay rivers (Informant L, August 19, 2010). A large part of the regional population became very engaged after being informed of the poor status of the belugas and created the Coalition. This environmental awakening put pressure on the governments to create the PMSSL and led to more sustainable ways of using marine resources, such as a tourism industry based on wildlife watching from the shore and boats. Indeed, whale watching from boats increased significantly in the PMSSL general area as of the mid-1980s (Canada-Québec, 2007).

Protection of the offshore was included in the original Paakumshumwaau-Maatuuskaau PA proposal discussions with the Wemindji tallymen. The community was informed of the Tawich project via word of mouth and encouraged to participate in workshops, which created social capital at the local level. Even though the Tawich project was put on hold for a few years while the EMRLCA process was officialised and management boards put in place, much local and regional interest remains in Tawich for small scale tourism and cultural heritage protection, including maintenance of offshore subsistence activities and associated knowledge (M. Mulrennan, personal communication, fall 2009 – summer 2014).

6.2.5. Transparent Communications

Throughout this study, a common theme identified is the need for transparency, a factor that is widely identified as a PA good governance principle amongst government agencies and the other stakeholders involved with planning an MPA initiative. The majority of the informants, both representing state and non-state interests, addressed the fact that transparent communications increase trust and cooperation. These elements are described by many informants as essential for the emergence of co-governance arrangements during MPA pre-establishment in Québec. Examples from two MPA cases, DFO's former Manicouagan Peninsula Area of Interest and Tawich, are presented below.

The GCC was involved with early discussions relating to Tawich because of regional Cree interests in the offshore, including overlapping interests between Crees and Inuit groups in the James Bay offshore. The former Chief of Wemindji R. Mark made it a point to inform the Grand Chief of any developments to ensure his ongoing political support for the project (because it is the Grand Council that has exchanges with the federal government at a higher political level). As such, Informant K explained the significance of the Grand Chief's visit to the Tawich project area in early July 2010 as extremely important: "When we start talking about protected areas people always seem to look at protecting the environment but I think it changes the perspective when you look at the environment; you're not just protecting a piece of land you're protecting something that people actually use and you're ensuring that use for that purpose. I mean I think that's what I want to emphasize with him" (July 19, 2010). Furthermore, there have been regular reporting requirements of the Tawich project leadership at local and regional levels throughout the planning process.

Pertaining to DFO's former Manicouagan Peninsula Area of Interest, a larger working committee including members from the technical committee worked between 2003 and 2006 on drafting the regulatory plan that was published in the Canada Gazette – Part 1 (Government of Canada, 2006). When the government of Québec requested all MPA projects in the St. Lawrence Estuary and Gulf be stalled, DFO had no choice but to strictly limit communications with the PNPO and other stakeholders involved since the early planning (Informant R, October 15, 2010). D. St-Laurent understood the limitations imposed on DFO due to the jurisdictional disagreement. However, numerous letters sent by the PNPO to DFO representatives that sat on the technical

and larger working committee remained unanswered. She explained that PNPO was frustrated, felt abandoned and lost trust in DFO.

Communications between the major stakeholders of the Manicouagan MPA project between approximately 1999 and mid-2000s were transparent and respectful (Informant U, August 23, 2010). Everyone had a genuine desire to see the project move ahead and materialize, which increased trust and cooperation (Informant U, August 23, 2010). However, DFO became completely opaque once the project was stalled due to jurisdictional disagreements between the governments of Québec and Canada; this led to disenchantment of many key regional stakeholders.

Chapter 7. Discussion

The lag in progress concerning marine/coastal conservation in Québec is attributed to a complex jurisdictional legacy, in which both the federal and provincial governments are involved. In terms of terrestrial PA creation, the government of Québec has a strong record with its commitment to the CBD conservation goals mentioned in section 1.1 and has protected over 9% of its territory as of March 2014. It is also the only Canadian province to have set a target to create a comprehensive network of MPAs by 2020. Since the pre-establishment stages of the PMSSL and the RAPM lasted 15 and 18 years respectively while the other two cases were both initiated ten years ago and have yet to be created, there is much to be learned from the experience of these MPA pre-establishment negotiations and this study has attempted to gather on-the-ground perspective of various stakeholders involved with the planning of one or more MPAs in Québec.

The four MPA cases of this research are very different at certain levels. The population affected (varying from ≈ 6,100 to 260,700 people) as well as cultural context (e.g. indigenous versus non-indigenous communities) greatly differs as well as the size of each case (varying from ≈ 500 to 20,000 km^2) (see Table 5.1). These differing factors definitely have an impact on the use and efficiency of the five most commonly discussed facilitating mechanisms that emerged from the coding process especially in terms of the participation levels. It is however important to state that this research strives to underscore more fundamental changes mainly linked to jurisdictional complexities/conflicts.

As such, the underlying barriers to MPA conservation discussed by the majority of informants are jurisdictional complexities/conflicts and many facilitating mechanisms that emerged from the coding process can be considered as tools needed to help navigate political-level impasses. One of the strong points of this research is providing an initial on-the-ground perspective of emerging co-governance arrangements during MPA pre-establishment in Québec. However, a limitation is that not enough interviews were conducted to extrapolate conclusions based on a deeper comparative analysis of the case studies.

In this discussion, the emphasis is on the five most common facilitating mechanisms that emerged from the coding process in terms of connections to good governance principles (section 7.1) and peer-reviewed empirical MPA governance literature (section 7.2), even though no other study has used the exact methodology that was used for this study. ‘Aboriginal and local

community participation' is the facilitating mechanism most commonly discussed by the informants followed by 'bridging organizations and leadership'. The 'integration of LEK and TEK' and 'public education-awareness' in MPA pre-establishment planning are tied for third. The fifth most commonly discussed facilitating mechanism that emerged from the interview coding process is 'transparent communications'. The last part of this discussion (section 7.3) builds on Chuenpagdee et al.'s (2013) 'step-zero' by conceptualizing five stages of MPAs pre-establishment and highlighting the need to address political conflicts and rules of participation in order to optimize the chances of conservation goals being achieved.

7.1. Discussing Good Governance Principles in Relation to the Five Most Discussed Facilitating Mechanisms from this Research

Good governance principles for PAs have been conceptualized by the IUCN since the early 2000s as preparation for the Durban WPC (2003) as well as by some national ENGOs (i.e. CPAWS). Some academic authors have also published their theories in peer-reviewed journals (e.g. Eagles, 2009; Lockwood, 2010; Moore et al., 2011). Since one of the ultimate objectives of this study is to inform MPA pre-establishment planning policy, it is useful to identify the similarities between the five on-the-ground facilitating mechanisms identified in this study to frequently discussed PA good governance attributes.

The good governance attributes presented in Jessen et al. (2011) are chosen here as a comparative measure since they were designed to guide MPA planning and management in Canada. Four of the five most commonly discussed facilitating mechanisms by informants on-the-ground for this study align more or less with Jessen et al.'s eight good governance attributes for MPAs (see Table 7.1). Thus, findings from this study point to the importance of applying commonly accepted PA/MPA good governance principles during MPA pre-establishment stages. As mentioned in section 4.3, this can seem like I directly applied those principles during the interview coding process but in fact they just provided general guidance in the beginning of the coding process.

Good governance attributes relevant to Canadian MPA governance context (Jessen et al., 2011)	Five most frequently discussed facilitating mechanisms from this study
Stakeholder Engagement Aboriginal Partnerships Cooperation	Aboriginal and Local Community Engagement
	Bridging Organizations and Leadership
Knowledge and Social Learning	LEK and TEK Used in Planning
Transparency Accountability Commitment	Transparent Communications
Public Awareness and Support	Public Education-Awareness

Table 7.1 - Comparison of the good governance attributes relevant to Canadian MPA governance context from Jessen et al. (2011) versus the five most frequently discussed facilitating mechanisms from this study

'Bridging organizations and leadership' is one of the five most frequently discussed facilitating mechanisms (see Tables 6.1, 6.2 and 6.4) from this study that is not specifically referred to in Jessen et al. (2011) but has been increasingly conceptualized and discussed in the natural resource management literature (e.g. Folke et al., 2005; Hahn et al., 2008; Berkes, 2009; Bodin & Prell, 2011).

7.2. Connecting the MPA Governance Literature to the Five Most Discussed Facilitating Mechanisms from this Research

Until the mid to late 2000s, the peer-reviewed on-the-ground literature on MPA governance, especially on pre-establishment, was very sparse (Heylings & Bravo, 2007). Since the 2010s, more attention has been given to this topic and increasingly more peer-reviewed articles focusing on cases in different parts of the globe are being published (e.g. Chircop et al., 2010; Moreno-Sánchez & Maldonado, 2010; Bown, 2011; Evans et al., 2011; Vasconcelos et al., 2012; Hogg et al., 2013; Metcalfe et al., 2013; Weeks & Jupiter, 2013). A few articles that studied an MPA case in a federated settler state are used here to make connections with the three of the five most commonly discussed facilitating mechanisms in the coding process of this research. Except for being listed in PA/MPA good governance conceptual publications/articles (UNDP, 1997; Graham et al., 2003; Lockwood, 2010; Jessen et al., 2011; Borrini-Feyerabend et al., 2013) and as incentives in Jones et al.'s (2011) MPAG framework, transparency and public education-awareness are not widely discussed as facilitating mechanisms in the peer-reviewed

MPA governance literature. A brief discussion follows of potential facilitating mechanisms that were not brought up by any informants.

The most commonly discussed facilitating mechanism by the informants, 'aboriginal and local community engagement', is in line with the increasingly recognized importance of having local and indigenous groups actively participate in decision-making relating to the establishment of MPA as early as possible to ensure the achievement of social and conservation goals (e.g. Dalton, 2005; Jentoft et al., 2007; Borrini-Feyerabend et al., 2013). However, there are not many peer-reviewed articles that provide empirical insights on this topic.

Chuenpagdee et al. (2013) argued that power conflicts need to be resolved in during MPA pre-establishment processes through the development and application of rules of stakeholder participation. Indeed, a few informants representing stakeholder groups in this study mentioned being more trustful of MPA leading government agencies once clear rules of participation were formalized (e.g. Informant N, October 7, 2010). However, after considering three MPA programs in Australia, Voyer et al. (2012) found that one of the ways to improve MPA planning arrangements was the "Integration of public participation exercises with social and economic impact assessment [that] would add value to each of these processes with each informing the other" (p. 437). This highlights the idea that participation measures used alone during the emergence of co-governance arrangements to support MPA projects may not provide desired outcomes if they are not supported by baseline social, economic as well as political data.

This study also points to the importance of indigenous groups as leaders and partners in MPA initiatives, and conservation in general. This is consistent with the recommendations from the four studies presented in section 3.2.2.1 (Ban et al., 2008; Nursey-Bray, 2011; Mulrennan et al., 2012; Dodson, 2014). However, the state government-Maori partnership that emerged to plan the Mimiwhangata MPA project in New Zealand found that "unless the appropriate legislative framework exists in which meaningful ongoing community involvement and control can be constituted, partnership-based conservation is unlikely to deliver substantial conservation or social gains" (Dodson, 2014, p. 1), which is relevant to Québec's complex marine and coastal jurisdictional context.

At least one influential bridging organization and/or leader were discussed in the interviews for each MPA case of this study (Informant C, October 18, 2010; Informant M, September 9, 2010; Informant S, July 20, 2010; Informant U, August 23, 2010) and it was the

second most commonly discussed facilitating mechanism in general. Their types were also diversified including local and provincial ENGOs as well as academics and their research teams. Bridging organizations/leaders were not discussed in the MPA governance literature reviewed in section 3.2. However, they have been an emerging theme over the last ten years within the natural resources co-management and social networks literature as discussed in section 3.1.2 on the research conceptual framework (section 3.1).

The roles of bridging organizations mentioned by informants were similar to one another. They included helping non-state stakeholders navigate governmental procedures, decreasing the time of certain MPA planning processes, overcoming disagreements, and increasing trust, cooperation and resilience. This is consistent with findings on bridging organizations by Folke et al. (2005), Olsson et al. (2006), and Berkes (2009), among others (section 3.1.2).

The positive impacts of two key visionary leaders involved with the Tawich project, within a larger context of PA creation based in Cree knowledge and institutions, are discussed here in terms of similar findings by Folke et al. (2005) and Olsson et al. (2006). They developed the novel idea to add a layer of provincial protection to a section of Wemindji's traditional lands and sought the approval of tallymen which is consistent with the findings of Folke et al. (2005) that visionary leaders are able to conceptualize new ideas, and of Olsson et al. (2006) that such leaders are well-equipped to mobilize local support for social and environmental change.

The integration of LEK and TEK is the third most commonly mentioned facilitating mechanisms by the informants of this research to support the emergence of co-governance arrangements during MPA pre-establishment stages. Many authors, including Natcher et al. (2005) and Fabricius et al. (2007), have suggested that LEK and TEK integration is a crucial component of natural resource co-management. In contrast, Nadasdy (2005) argued that co-management is an extension of state power into the communities and lives of indigenous people.

The four MPA cases used LEK and/or TEK at various degrees with the Tawich project being fully anchored in Cree knowledge. The Tawich approach is consistent with Nursey-Bray's (2011) lessons including the following: "MPA frameworks need to be flexible and incorporate multiple interpretations of what constitutes marine activity and recognise there are multiple constructions of place" (p. 681). Of course, it is also in line with Mulrennan et al. (2012) which detailed the WPAP "commitment […] to explore the possible terms and design of […] protection

from trans-disciplinary and local knowledge perspectives and in dialogue with community and government agency actors through a research partnership" (p. 250).

There are two facilitating mechanisms greatly relevant to the Canadian and Québec MPA pre-establishment context that were not discussed by the informants. As such, federal and provincial endangered species laws and international MPA targets commitments could be utilized more by MPA planning processes to increase their legitimacy. These two facilitating mechanisms are encompassed in one of Jones et al.'s (2011) legal incentives within the MPAG: "International-regional-national-local regulatory obligations that require effective MPA conservation, including the potential for top-down interventions" (p. 23). This points to the need to include a broad list of incentives/facilitating mechanisms (i.e. economic, legal, interpretive, knowledge and participative) when assessing the emergence of co-governance arrangements during MPA pre-establishment.

7.3. Conceptualization of the MPA Pre-Establishment Stages

When theorizing the MPA 'step-zero', Chuenpagdee et al. (2013) did not provide detailed steps to follow based on their previous research or the short cases they discuss. To address this gap, I provide an overview of MPA pre-establishment stages that I believe would be most efficient and equitable based on my results:

1) Whether the initial idea of an MPA project is top-down, collaborative or bottom-up, the first step should be to educate the population adjacent to the potential MPA site on the concept of MPAs, as well as their benefits. Awareness campaigns can be shared through information sessions, the media, etc.
2) Representatives from key stakeholder groups/organizations/agencies should then be identified and brought into an institutionalized participatory and transparent MPA planning process. Rules of participation should be jointly developed and approved.
3) A feasibility study should be conducted soon after focusing on ecological, social, cultural and economic aspects of the potential MPA site. This data can then be used by stakeholders to decide on MPA scenarios that define various take, no-take and buffer zones as well as management regulations.

4) Once a MPA scenario has been chosen by the key stakeholders and leading government agencies, they should meet on more than one occasion to draft a preliminary management plan.
5) The preliminary management plan should then be made public (at information sessions and online) with the goal of obtaining comments from the population living adjacent to the potential MPA site. The key stakeholders and leading government agencies(s) should decide together which comments to incorporate or not to the final management plan.

'Step-zero' is a foundation for the following MPA steps that can be categorized as implementation, management and enforcement. If enough time and resources are allocated to address political conflicts and rules of participation during MPAs pre-establishment, there are better chances of conservation goals being achieved in the medium- to long-term (Chuenpagdee et al., 2013).

Chapter 8. Conclusion

The focus on Québec's limited progress in MPA establishment should be judged in the context of significant progress in the planning and creation of terrestrial PAs within Québec over the last decade (> 9% of its territory protected) (MDDELCC, 2014). Furthermore, Québec made and reiterated its commitment to the CBD MPA goals through the signing of the federal-provincial *St. Lawrence Action Plan 2011-2026* to increase MPA coverage by 2020 (Canada-Québec, 2013). Nevertheless, only 3.1% of the province's marine territory is under protection according to Québec's official public registry of protected areas. Until a willingness and a way to end complex inter-jurisdictional wrangling is found by the governments of Québec and Canada, little progress can be made. Many interest groups (particularly oil and gas industries) are content with the status quo that this impasse supports.

This research contributes to understanding the causes of the limited progress made in advancing MPAs in Québec through an examination of common facilitating mechanisms within emerging co-governance arrangements during pre-establishment of four MPA cases in relation to on-the-ground perspectives of key informants. This addresses a significant gap in the literature in terms of on-the-ground social-political assessments of MPA stakeholder perspectives in general and even more so during pre-establishment (Carneiro, 2011; Gleason et al., 2010; Chuenpagdee et al., 2013) and underscores importance of the 'step-zero' identified by Chuenpagdee et al. (2013). Furthermore, four of the MPA good governance principles identified by Jessen et al. (2011) are confirmed since they were among the top five facilitating mechanisms most commonly discussed by the informants of this study.

Semi-structured interviews were conducted with a diversity of stakeholders (past and current) for each MPA case to ensure a more balanced and equitable evaluation. The findings and discussions of this thesis are significant since there is much to be learned from the experience of these lengthy MPA pre-establishment negotiations. The marine and coastal inter-jurisdictional politics, which are a sensitive subject in Québec, were difficult to navigate during this research project. Thus, there is limited documentation of MPA experience in Québec so the contribution of this thesis is especially important.

Some marine policy recommendations pertaining to emerging co-governance MPA arrangements during pre-establishment are made following this research:

- Participative governance structures and processes that support the emergence of efficient and equitable co-governance arrangements should be favoured. High levels of public participation with non-state stakeholders including indigenous peoples are necessary to ensure MPA conservation objectives are attained (e.g. Borrini-Feyerabend et al., 2013). Categories V and VI of the IUCN *Protected Areas Categories System*, the Protected Landscape/Seascape and the Protected area with sustainable use of natural resources, support governance arrangements involving indigenous and local communities (Dudley, 2008). In addition, the ICCAs are gaining increased recognition as effective conservation tools worldwide (ICCA, n.d.; Herrmann et al., 2012).
- There should be increased state support for bridging organizations/consultants and other non-governmental leaders such as academics that are able to lubricate the relations between state and non-state actors. This is consistent with much natural resource management literature (e.g. Folke et al., 2005; Olsson et al., 2006; Berkes, 2009; Bodin & Prell, 2011).
- The integration of LEK and TEK in MPA pre-establishment planning should be a priority. As clearly stated by Jessen et al. (2011), "To facilitate well-informed, cooperative planning and management, the best-available knowledge and information must be readily available to the institutions and stakeholders involved. It is increasingly recognized that drawing on Aboriginal knowledge and LEK as well as sound science can bring more informed decisions that serve local people and ecosystems better" (p. 41).
- Transparent mechanisms are crucial through any MPA 'step-zero' planning process to address potential cross-jurisdictional and cross-sectoral conflicts. When local and regional stakeholders feel left out of the planning discussions, either suddenly or persistently, it leads to mistrust of governmental agencies and lowers the potential for constructive collaborations with the marine stewards in the future. California's MPA regional planning is a good example since its use of MarineMap (replaced by SeaSketch), a geographic information system decision-support tool, enables a highly transparent, flexible and science-based participatory process (e.g. California Department of Fish and Wildlife, n.d.; Gleason et al., 2010; Fox et al., 2012).

- More financing from governments and private foundations should be invested towards public education programs on marine ecosystems and conservation to increase public mobilization, empowerment and support for MPAs. Ultimately, the hope would be to lessen the general 'out of sight/out of mind' attitude of the Québécois people in regards to their marine environments.

It is hoped that this research will inform and guide MPA policy in Québec and Canada to support more effective emerging governance arrangements during MPA establishment based on past experiences. The next step towards this objective will be to draft a brief summary (≈ 3 pages) of my research highlighting the main conclusions/recommendations and to share it with all the research informants. As this research project draws to a close, preparations are gearing up for the next IUCN WPC, which will take place this November in Sydney, Australia. With increased global sharing opportunities, perhaps the findings and discussions in this thesis will provide some useful insights to others.

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Appendices

Appendix A - Program of the Symposium on MPAs in Québec (in French)

SYMPOSIUM SUR LES

AIRES MARINES PROTÉGÉES AU QUÉBEC

Vers un réseau pour préserver notre biodiversité marine

Rimouski, les 10 et 11 juin 2010

Pour la toute première fois en juin prochain, les parties prenantes de la conservation marine au Québec se réuniront pour réfléchir aux enjeux et aux opportunités liés au réseau québécois d'aires marines protégées. En cette Année internationale de la biodiversité et suite à la Journée mondiale des océans, ce rendez-vous est incontournable pour l'avancement de la conservation marine.

Objectifs :

- Dresser l'état de la situation des milieux marins au Québec et des aires protégées qui s'y rattachent.
- Présenter les différents programmes ministériels concernant les AMPs au Québec.
- Mettre en commun les visions, intérêts et expertises des principales parties prenantes du milieu marin (instances gouvernementales, milieu académique, industries, utilisateurs, ONGs) au sujet des AMPs.
- Tirer profit des expériences d'AMPs existantes et en cours de création pour bonifier le réseau d'AMPs.
- Créer un réseau d'experts qui collaboreront pour faire progresser le dossier des AMPs au Québec.

Livrables :

Un document synthèse de l'ensemble des conférences et discussions du symposium sera produit et distribué aux participants ainsi qu'aux ministères concernés.

JOUR 1 JEUDI, 10 JUIN 2010

Conservation marine, enjeux et programmes québécois

9h00 — Inscriptions des participants, café

9h30 — Atelier réseautage (facilitateur)

10h00 — Mots de bienvenue

Panel 1 : **Conservation marine et situation québécoise**

10h30 — CONCEPTS DE LA CONSERVATION MARINE (chercheur académique)

10h50 — ÉTAT DU MILIEU MARIN QUÉBÉCOIS : BIOLOGIE, ENVIRONNEMENT, ENJEUX (scientifique de l'Institut des sciences de la mer de Rimouski)

11h10 — ÉTAT DES AMPS AU QUÉBEC : PORTRAIT DE LA CONSERVATION MARINE ET PERSPECTIVES DES ONGS (SNAP Québec)

11h30 — Discussion

11h50 — Dîner

Panel 2 : **Programmes ministériels concernant les AMPs au Québec**

12h50 — MINISTÈRE DES PÊCHES ET DES OCÉANS DU CANADA (représentant(e) du MPO)

13h05 — AGENCE PARCS CANADA (représentant(e) de l'APC)

13h20 — ENVIRONNEMENT CANADA (représentant(e) d'EC)

13h35 — MINISTÈRE DU DÉVELOPPEMENT DURABLE, DE L'ENVIRONNEMENT ET DES PARCS DU QUÉBEC (représentant(e) du MDDEP)

13h50 — Discussion

14h10 — Pause café

Panel 3 : **Expériences vécues et points de vue de l'industrie en lien avec les AMPs**

14h25 — INDUSTRIE DE LA PÊCHE (représentant(e) de l'industrie)

14h40 — SECTEUR DES HYDROCARBURES (représentant(e) de ce secteur)

14h55 — INDUSTRIE TOURISTIQUE (représentant(e) du tourisme)

15h10 — INDUSTRIE DU TRANSPORT MARITIME (représentant(e) de l'industrie)

15h25 — Discussion

15h55 — Mot de conclusion

16h10 — Fin du jour 1


photo: Nelson Boiswert


photo: Thierry Gosselin

JOUR 2 VENDREDI, 11 JUIN 2010

Études de cas québécois et dialogues sur un réseau d'aires marines protégées (AMPs) au Québec

8h30 — Arrivée et café

9h00 — Mot de bienvenue (facilitateur)

Panel 4 : **le parc marin du Saguenay-Saint-Laurent (PMSSL)**

9h15 — VISÉES ET OBJECTIFS DE CONSERVATION DU PMSSL (membre du comité de coordination du PMSSL)

9h35 — BILAN DES RETOMBÉES 10 ANS PLUS TARD (responsable du PMSSL)

9h55 — Discussion

10h10 — Pause café

Panel 5 : **Wemindji et le projet Tawich**

10h25 — VISION ET OBJECTIFS DE TAWICH (Représentant du Conseil de bande de Wemindji)

10h45 — SIGNIFICATIONS ÉCOLOGIQUE, HISTORIQUE ET CULTURELLE DE LA REGION (Chercheur(e) ou étudiant de McGill ou Concordia)

11h05 — SAVOIR CRI ET GESTION (Chercheur(e) ou étudiant de McGill ou Concordia)

11h25 — Discussion

11h55 — Dîner

12h55 — RETOUR, DÉROULEMENT DES DISCUSSIONS DE L'APRÈS-MIDI ET BUTS DE L'EXERCICE (facilitateur)

13h15 — DISCUSSION EN PETITS GROUPES: Perspectives des participants et étapes à venir pour la création d'un réseau d'AMPs au Québec.

14h15 — Pause café

14h30 — DISCUSSION EN GRAND GROUPE (facilitateur)

15h30 — Retour sur les discussions de l'après-midi (facilitateur)

15h45 — Défis et opportunités pour le Québec ; conclusion (facilitateur)

16h00 — Fin du jour 2

Appendix B - Example Interview Guide (used when meeting a government informant)

Introduction

But de mon projet de maîtrise

Le but de ce projet est d'effectuer une évaluation de quatre aires marines protégées (AMP) au Québec (PMSSL, Manicouagan, Îles-de-la-Madeleine, Tawich) en fonction de leur structure de gouvernance, des relations entre les diverses parties prenantes et des défis et réussites ayant marqué la planification de ces projets. Des entrevues seront menées avec des participants de diverses catégories impliquées dans la planification des AMP au Québec de manière à faire ressortir l'expérience de différents groupes. Le but est de dégager des idées et des recommandations pour des projets d'AMP actuels, dont certains sont bloqués depuis de nombreuses années, et pour de futurs projets d'AMP au Québec. Le sujet visé par ce projet de recherche est opportun compte tenu des progrès limités que le Canada a faits dans la mise en place d'un réseau d'AMP, malgré l'engagement qu'il a pris à cet égard en vertu de la Convention sur la diversité biologique, de l'évolution très lente des projets d'AMP au Québec au cours des 15 dernières années et de la sensibilisation, à l'échelle internationale, au rôle crucial des communautés locales et autochtones dans la planification et la gestion des aires protégées.

But de cette entrevue

Le but premier de cette entrevue est de mieux comprendre la position et le rôle de la SNAP dans le dossier des aires marines protégées au Québec.

Questions

Pourquoi le milieu marin de la province naturelle de l'estuaire et du golfe du Saint-Laurent n'a pas fait l'objet d'une approche systématique de planification du réseau d'aires protégées dans le contexte du Plan d'action stratégique sur les aires protégées 2002-2009? Est-ce que le gouvernement du Québec a les ressources financières et l'expertise nécessaires pour se doter d'une Stratégie sur les aires marines protégées et mettre en œuvre son Plan d'action, dans les prochaines années?

Projet de conservation Tawich

Quels avantages et désavantages la Direction du patrimoine écologique et des parcs voit-elle à créer une AMP, telle que le projet Tawich, au large d'une réserve de biodiversité, telle que Paakumshumwaau-Maatuuskaau, étant donné que les intervenants locaux ont souvent un impact sur les milieux terrestre et marin connexes?

Projet d'AMP de Manicouagan

De quelle(s) façon(s) et à quel(s) niveau(x) le MDDEP et MPO communiquent-ils, au sujet du projet d'AMP de Manicouagan? Est-ce que ces discussions ont lieux dans le cadre du mandat du Groupe bilatéral sur les aires marines protégées au Québec? Pourquoi, ou pourquoi pas?

Le comité technique de ce projet a fait un travail immense pour rédiger un plan de gestion basé, en grande partie, sur la volonté des communautés et organismes locaux et du public. Une grande partie de ce travail sera à refaire, étant donné la longue durée des discussions entre le Québec et le Canada. Un représentant du MDDEP était présent à de nombreuses réunions du comité technique, alors pourquoi le Québec n'a-t-il pas fait part de son souhait, qu'il y ait des

discussions politiques à un plus haut niveau entre le Québec et le Canada plus tôt dans le processus de planification?

Projet d'AMP des Îles-de-la-Madeleine

Est-ce que la Direction du patrimoine écologique et des parcs est en contact avec un ou plusieurs groupes locaux aux Îles-de-la-Madeleine, par rapport au projet d'AMP (ex : ZIP, Association des pêcheurs propriétaires, CERMIM, Municipalité ?etc.)?

De quelle(s) façon(s) et à quel(s) niveau(x) le MDDEP et Parcs Canada communiquent-ils, au sujet du projet d'AMP? Est-ce que ces discussions ont lieux dans le cadre du mandat du Groupe bilatéral sur les aires marines protégées au Québec? Pourquoi, ou pourquoi pas?

Le 19 novembre dernier, une journaliste de la Radio des Îles-de-la-Madeleine affirmait que «le ministre de l'Environnement du Québec, Pierre Arcand, ne devrait finalement pas faire d'annonce, aujourd'hui, dans le dossier de l'aire marine de conservation.» Que s'est-il passé lors de cette annonce ratée?

Quelle(s) ressource(s), la Direction du patrimoine écologique et des parcs, serait-elle capable de contribuer à une potentielle étude de faisabilité?

En automne 2009, la ministre Normandeau a visité les Madelinots pour expliquer sa démarche d'EES, et a affirmé que «si une entente pour une AMP survient entre le Québec et le Canada, pétrole ou pas, nous respecterons le territoire à protéger. C'est le gros bon sens.» Est-ce que la Direction du patrimoine écologique et des parcs du MDDEP a confiance en ces propos?

Exploration et exploitation des ressources pétrolière et gazière

Selon les conclusions du rapport du BAPE sur la question des levés sismiques réalisés en milieu marin (2004), «il est capital de circonscrire, avant la réalisation de nouveaux levés sismiques de forte puissance, les aires à protéger de l'estuaire et du golfe du Saint-Laurent». Quelles ont été les pourparlers, entre la Direction du patrimoine écologique et des parcs et la Direction générale des hydrocarbures et biocarburants du MRNF, à ce sujet?

De quelle(s) façon(s) la Direction du patrimoine écologique et des parcs du MDDEP a-t-elle été consultée pour les évaluations environnementales stratégiques 1 et 2 ?

Organismes à but non-lucratif

Comment la Direction du patrimoine écologique et des parcs entrevoit-il le rôle des ONG dans le dossier des AMP au Québec, en termes de la communication, de l'éducation, de l'expertise, etc.? Est-ce que les recommandations du rapport synthèse du Symposium sur les aires protégées au Québec (2010) seront prises en compte?

Communautés locales et autochtones

Comment la stratégie de la Direction du patrimoine écologique et des parcs a-t-elle évoluée/changée, en terme de la participation des communautés locales aux projets d'aires protégées, depuis les 10 dernières années? Plus précisément, comment la stratégie de la Direction

du patrimoine écologique et des parcs a-t-elle évoluée/changée, en terme de la participation des communautés autochtones?

Dans le futur, est-ce que la Direction du patrimoine écologique et des parcs favorisera une approche participative, de plus en plus utilisée dans le nord du Québec (ex : projet de parc national Albanel-Témiscamie-Otish), pour la planification des aires marines protégées? Si oui, de quelle(s) façon(s)?

Autres
Pourquoi le Groupe bilatéral sur les aires marines protégées au Québec n'a pas réussi à développer une réelle approche coordonnée sur les aires marines? Pourquoi l'entente élaborée ne peut-elle être mise en œuvre?

Le Parc marin du Saguenay-Saint-Laurent a été créé en vertu d'une entente signée, le 6 avril 1990, par les gouvernements du Québec et du Canada, alors que les lois créant officiellement le parc et encadrant sa gestion, sont entrées en vigueur en 1998. Cet exemple de 'coplanification' entre le Québec et le Canada, avec la création du comité de coordination en 1995, serait-il à répéter? Pourquoi? Pourquoi pas?

Comme la majorité des agences gouvernementales, le MDDEP est très hiérarchisé (complexité de la fonction publique). En quoi est-ce que ceci facilite et/ou nuit la création d'un réseau d'AMP au Québec?

Symposium sur les AMP au Québec
Quelle a été la plus grande réussite du Symposium? Et quels aspects seraient à améliorés?

Est-ce que le Symposium a réellement fait avancer le dossier des AMP, et pourquoi?

Autres commentaires?