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Beyond a Mapping Exercise:
Inclusion of Aboriginal Traditional Ecological Knowledge in Parks and Protected Areas Management

By

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Major Research Paper
Submitted to the Department of Geography and Environmental Studies
in partial fulfillment of the requirements
for the Master of Environmental Studies degree
Wilfrid Laurier University

2019

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Abstract

This paper examines current approaches for Parks and Protected Areas (PPA) managers in incorporating Aboriginal Traditional and Ecological Knowledge (ATEK) into their management plans. This paper focuses on two case-studies. They are Nahanni National Park and Reserve in the Dehcho region of the Northwest Territories, and the Whitefeather Forest Protected Area in the Pikangikum First Nations Traditional Territory in Ontario. They were chosen because of their unique approaches to include Aboriginal communities in the planning process and their designation as UNESCO World Heritage sites. The broader indigenous involvement policies of both Parks Canada and Ontario Parks are examined using academic literature review and a document-based case study from each agency. The paper sets out to understand where potential disconnects have occurred and if there are any tools to be used to utilize ATEK in the implementation of cooperative management plans focusing on PPA management. The question is asked: Are there any areas where planners can work in a more meaningful manner with Aboriginal communities to utilize the depth of knowledge that to date has remained largely underutilised?

Most fundamentally, for current federal and provincial parks and protected areas management to include Aboriginal Traditional and Ecological Knowledge, and create a positive cooperative management method, there needs to be a fundamental shift in policies. Foremost is the building of the relationship of Aboriginal communities and Crown Agency. They must seek to braid ATEK and Western Science, to balance knowledge, include Aboriginal voice in a meaningful and substantive manner. More practically, this review suggests the government agencies need to make fundamental changes in their policies to ensure the inclusion of Aboriginal Traditional Ecological Knowledge in Parks and protected areas management is standardised across the province of Ontario and Canada.

Acknowledgements

I would like to thank Dr. Scott Slocombe for the years of constantly being there and your unending patience with me. It has taken a lot longer than we expected, and I apricate your dedication. For the frustration you had with me, trying to keep me focused and my scope of work clear, thank you for working through it with me.

I would also like to thank the readers and members of my committee. As well as Wilfrid Laurier's Department of Geography's administrative staff, who I pestered more than a few times for their help.

I need to make sure my two boys understand how much their questioning me about why am I still doing homework has help get me through this. The weekends and evening when you wanted me to play, but understood I needed to get my homework done. Colin and Liam, you are my inspiration, and I hope you see that when you work hard, and never give up, even when it feels like everything is against you, you can succeed. Keep trying!

I want to thank Franco Fleming, who came on a canoe trip with me to Temagami for a very wet and cold few days one fall in hopes of finding a case study. I will never forget scooping water out of my coat pockets, and the small forest of wood we sawed up and burnt to stay warm.

To my brothers who have tormented me my whole life to make me see my potential. My mother and father who never lost faith and still love to nag me about getting my homework done.

Finally, to you Lara, my wife, even when things were really hard, when I felt I was at rock bottom, when I was so stressed out, I could not sleep, you were there for me to keep me focused and on track. To calm me and put food in front of me when I would forget to eat.

There is no way I could have done this without all of you.

Thank you.

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1 INTRODUCTION

Canadian Aboriginal peoples are those who lived, and still live, in North America at the time of European contact. It is often thought Aboriginal peoples of North America originated in Asia and eastern Russia and came across the Bering Sea land bridge during the last ice age between 10-12,000 years ago (Morrison, et.al 2004), however, recent archaeological evidence in the Old Crow region of the Yukon has been dated to over 24,000 years (Morrison, et al. 2004) putting Aboriginal peoples in North America over 10,000 years before the Bearing Sea land bridge. There is even evidence of human activities in southern California dating back over 130,000 years (Holen, et al. 2017). In April 2017, *Nature* released an article stating researchers say prehistoric mastodon bones bear human-made markings. The paper disputes the traditional views that the first North Americans migrated during the last ice age (Holen, et al. 2017).

Aboriginal peoples continue to live close to the lands they have inhabited since before European contact and colonialism moved them onto reserves in Canada. In other instances, Aboriginal communities have been removed from their traditional lands for the creation of both national and provincial parks (Dearden et.al. 2016). In the 1970's a new era of social responsibility began with regards to Aboriginal rights in Canada. Beginning with the Supreme Court of Canada's British Columbia Calder case (1973), the federal government began the long process of recognising Aboriginal rights.

This paper is about understanding how both Federal and Provincial governments in Canada think about working with Aboriginal communities when creating or revising parks and protected areas management plans. The purpose is to examine specific examples where Parks Canada and Ontario Parks (the Crown) are working with Aboriginal communities, and evaluate how they are working to include Aboriginal communities in the planning process. Using two case studies and a literature review I will work to identify methods for the inclusion of Aboriginal Traditional and Ecological Knowledge in parks and protected areas planning processes.

It is hoped my research will contribute to a better understanding of the process for parks and protected areas planning and management where the Crown can work in true partnership with Aboriginal communities to protect and preserve traditional lands, customs and values. I am specifically interested in how Aboriginal Traditional and Ecological Knowledge (ATEK) can be incorporated into the planning and management process in parks and protected areas to help

Aboriginal communities build capacity and protect their customs values and traditions. I will draw on the current academic literature to suggest strategies for improving the inclusion of ATEK efforts across Canada.

It is important to understand some of the terms to be used in this paper. Currently the accepted terminology for inclusion of First Nations, Metis, and Inuit is Indigenous peoples. However, for the sake of consistency and to follow the Canadian Constitution Act (CCA) of 1982 this paper will be using the term Aboriginal as it is defined in Section 35; "(2) In this Act, "aboriginal peoples of Canada" includes the Indian, Inuit and Métis peoples of Canada." (CCA 1982). While "Aboriginal" may cause some discomfort with various groups, no disrespect to any individual or groups is intended, Further, where appropriate in the discussion of individual communities or groups such as the Dehcho First Nations the nomenclature the communities have indicated is the correct terminology will be used. When discussing the federal and provincial governments, I will use the term "the Federal Crown" or "Provincial Crown" to refer to each level of actors collectively; as the two agencies do not work together, I will use Parks Canada or Ontario Parks when discussing their respective plans and policies.

1.1 RESEARCH GOALS AND OBJECTIVES.

The central goal of this research paper is to investigate the use of ATEK and its role in parks and protected areas management. In this research I want to investigate three main areas for improving Crown policy and management process with regard to the inclusion of aboriginal communities in parks and protected areas planning.

a) Identify how parks and protected areas planning and policies are currently incorporating ATEK in management planning.
b) Review how Aboriginal Traditional Ecological Knowledge (ATEK) can be utilised in parks and protected areas planning without degrading the integrity of the ATEK.
c) Recommend some ways provincial and federal governments can change parks and protected area planning policies to incorporate ATEK.

1.2 INTRODUCTION TO LITERATURE REVIEW

The literature review can be divided into three main areas, first an overview of traditional knowledge definitions, studies and current uses in natural resource management; second, a review of aboriginal involvement in resource management; and third an examination of the involvement of Aboriginal peoples with parks and protected areas management.

The first section is an overview of ATEK, it will provide some background as to what ATEK is, and why there is a growing emphasis on the attempts of Crown agencies and actors to include ATEK in the process for design and management of parks and protected places. ATEK has many definitions from both scholars and aboriginal peoples. Many attempts to include ATEK in natural resource management have been made and met with varying levels of success, and attempts continue.

ATEK studies have traditionally been the realm of archeologists and anthropologists, not until the 1980's when the government of the Northwest Territories and the First Nations of BC, in began to collect ATEK for use in land claims, was the value for resource management recognised. There were, and still are issues with the interpretation of ATEK for resource management, with some critics thinking ATEK is more philosophical and spiritual than practical (Howard, Widdowson, 1996). Other issues with the collection of ATEK were in the intended use, as many non-aboriginal people do not fully understand the nature of the knowledge sets, it has often been used by industry in a very limited project footprint, the users not understanding ATEK does not stop at a project footprint, but is inclusive of entire regions.

ATEK's use, while the current practice and methods for inclusion can be controversial, can be applied in many cases such as water conservation, environmental assessments, and land claims. For example, the Dehcho First nations have conducted extensive ATEK studies and applied them in the creation of the Keepers of the Water program, an initiative for the Aboriginal communities to take control, of their traditional watersheds, Deborah McGregor sees great value in using ATEK for environmental preservation,

The second area will provide some understanding of the current methods and uses for ATEK in natural resource management, and how it can be used to improve ecological integrity and diversity of natural areas. ATEK takes a holistic view of natural systems, and shows, like some western science perspectives, that if a single aspect of a system is removed the entire system can crash (Johnson, 1992, McGregor, 2009, Tobias, 2000, Menzies, 2006).

Finally, the third section will seek to give the readers some background on the historic methods for the creation of parks and protected areas in Canada and the ongoing struggles of the aboriginal populations to roll back the colonial attitudes that have often accompanied parks and protected areas. Initially, both Parks Canada and Ontario Parks had no regard for the inclusion of aboriginal peoples in the creation of parks and protected areas. Often, aboriginal communities were forcefully moved off lands or were told to sell. Parks policies did not change until the 1970's after a number of Supreme Court of Canada decisions, which recognised and established the need to protect aboriginal rights (Dearden et.al. 2016).

As Canada moves into an age of reconciliation with aboriginal communities across the country, and toward the implementation of the Untied Nations Declaration on the Rights of Indigenous People (UNDRIP), we need to find new ways of understanding and including Aboriginal people, their rights and traditional knowledge, and including the communities in the decision-making process in a meaningful manner, rather than just a box to be checked in a process. Article 18 of the UNDRIP states: "Indigenous peoples have the right to participate in decision-making in matters which would affect their rights…" (UNDRIP, 2011)

Attempts to incorporate ATEK and aboriginal peoples into parks management are not new. In 2000 Speilmann and Unger outlined three major tenets for working with aboriginal communities in parks management:

1) In order for Native people to fully participate in a park plan, the Native voice must be heard,
2) First Nations people would prefer to have the government work with them by negotiating policies and regulations in the park, e.g. hunting and fishing rights; and,
3) More policies that integrate First Nations culture needs, and issues should be established. (Speilmann and Unger, pg. 464, 2000)

If the relationship is to work, policies in the park must reflect a partnership between parks agencies and First Nations.

Current models of cooperative management in both Parks Canada and Ontario Parks are failing for a number of reasons which I will examine in the literature and two case studies. Improving the use of ATEK in the decision-making process may provide much-needed tools for both federal and provincial Crown to move towards true reconciliation.

To better understand how ATEK can be used and move Canada along the path to reconciliation, we must understand how it is currently being used, or not used, and if there are

any areas ATEK can make a meaningful contribution to parks and protected areas management. Parks and protected areas represent activities where aboriginal communities as well as the crown have great interests, and both Parks Canada and Ontario Parks have been working with local Aboriginal communities to try and build relationships.

1.3 Introduction to methods and methodology

A case-study analysis approach has been utilized to understand the current operational methods both Parks Canada and Ontario Parks have taken to include aboriginal communities in parks and protected areas management.

The background literature analysis will be conducted with the goal of introducing the study, describing related studies, and comparing the two case-study management agreements for commonalities and for potential gaps. The literature review will proceed in a systematic fashion to capture, evaluate and summarize both academic and non-academic literature, a well as to find a place where my research will make a contribution to the field of study.

A document analysis is a systematic procedure for reviewing and/or evaluating documents such as park management plans, management agency policies, in this research. Successful document analysis includes examining and interpreting data in order to elicit meaning, to gain understanding and to develop empirical knowledge (Bowen, 2009). A qualitative document review will be conducted to gather and compare the information needed to analyse the two case studies.

A case study approach is beneficial as it utilizes real world examples of existing cooperative management agreements between two levels of Crown and aboriginal peoples. Two case studies have been chosen to cover some diversity of relevant examples in Canada, and include a comparison between the methods used by the Province of Ontario and the Government of Canada. It is hoped that there will be lessons learned from each approach that can be of benefit to the other, and to help aboriginal communities across Canada when dealing with the creation of new parks and protected areas.

Nahanni National Park and Reserve is located in the Northwest Territories and the traditional area of the Dehcho First Nations. It is also vital to this research to understand that the Dehcho First Nations are in the middle of an unsettled land claim (Nahanni Management Plan,

2010), and Nahanni National park recently underwent a park expansion process, which included the participation of the Dehcho First Nations.

Whitefeather Protected Forest is situated in the northwester region of Ontario's Boreal forest bordering Manitoba and is part of the larger Woodland Caribou Provincial Park and UNESCO world heritage and natural heritage designated area. It is unique in its standing with duo UNESCO designations. The Ontario government has signed a cooperative management agreement with the Pikangikum First Nations.

These case studies were chosen because they can illustrate quite different approaches, by different agencies, and because as the researcher, I am very familiar with both areas. I was a member of the Dehcho First Nations Land claim negotiation team and represented the Dehcho for the Nahanni Park Expansion process. While working for the Dehcho First Nations I also authored the management plans for the Dehcho First Nations Protected Areas strategy, which as of 2019 have been formally adopted by the federal government in an agreement giving the Dehcho First Nations control of all protected areas within their traditional territory.

For several years I worked for the Ontario Ministry of Natural Resources (OMNRF) as a Resource Liaison specialist and created a number of tools currently used by the OMNRF for aboriginal consultation with regards to natural resource management. I also worked closely with the Protected Areas policy branch to ensure policies fell in line with the OMNRF's views on Supreme Court of Canada rulings. Whitefeather is also a unique protected area in that the management plan allows for active resource extraction and does not set aside specific tracks of land for wilderness protection as other protected areas do (LOA, 2012).

The research methods for this paper are an in-depth document-based analysis of the management between Parks Canada and the Dehcho First Nations for Nahanni National Park and Reserve, and between Pikangikum First Nations and Ontario Parks for the Whitefeather Protected area. As well, both the Ontario's Protected Areas Planning Manual and Guidelines, (2014) (most recent), and the Handbook for Parks Canada employees on consulting and accommodation with Aboriginal peoples (2011) will be analyzed and evaluated.

1.4 Outline of Paper

The succeeding chapters of this paper address the main research goals and objectives. In the next chapter, the literature review, I look at the current research done in the field of inclusion of ATEK in park and protected areas management, seeking to understand where and how any

other researchers have reviewed and analysed the issues for inclusion and what they see as best practices. I review other pertinent areas for Aboriginal inclusion in natural resource management and how there is close correlations between the two sectors and lessons learned from natural resource management can be applied to park and protected areas management.

The case study Chapter provides some background on the two parks and protected areas chosen for comparison. Using the management plans, memorandum of understanding, and letters of agreement between the Crown actors and Aboriginal groups an analysis of federal and provincial policies are conducted and compared.

Finally, Chapters 4 and 5 review the case studies, and conclude the thesis with a summary and offer lessons learned and recommendation to help Crown agents and others moving forward with building positive relationships with Aboriginal communities, and potentially working towards a level of reconciliation.

2 LITERATURE REVIEW

A review of academic and non-academic literature related to the key research themes was conducted while simultaneously analysing relevant documents, such as cooperative management agreements and Parks Canada and Ontario Parks planning documents for the case studies (see Chapter 4). The relevant literature has informed the analysis of the agreements as well as providing a valuable tool for understanding the general social aspects of the research field. The views of aboriginal peoples are identified by researching aboriginal scholars as well as aboriginal peoples working to change the ways in which parks and protected areas are created and managed.

Modern society is confronting the inevitable results of colonization, capitalism and globalization, and Eurocentric philosophy of dominance over the natural world. We are out of balance with the natural world and the future of our planet depends on our capacity to restore that balance. There is a strong correlation between the rise of globalization and the decline of the natural world. In a study of current climate change and the influence of globalization Jayson Maclean wrote: “Thus, particularly under future warming, the intensification of international trade has the potential to amplify climate losses if no adaption measures are taken” (Maclean 2016). As we begin to understand the environmental impacts of colonialism, capitalism and the failings of contemporary resource management, we search for alternative practices and perspectives (Menzies, 2006). Incorporating ATEK into resource and protected area management practices represents a move from isolating individual aspects of the environment or a reductionist method of resource management to a more encompassing holistic means to manage natural systems.

This chapter reviews the relevant academic and grey literature in three areas related to the incorporation of ATEK into resource and protected area planning and management. These areas are: Aboriginal Traditional and Ecological Knowledge (ATEK), parks and protected areas and Aboriginal peoples, and Aboriginal resource management, ATEK and consultation.

2.1 ABORIGINAL TRADITIONAL AND ECOLOGICAL KNOWLEDGE (ATEK)

Central to my work is the idea of Aboriginal Traditional and Ecological Knowledge, or ATEK. There are many definitions of Aboriginal Traditional knowledge (ATK), such as from

the Royal Commission on Aboriginal People (1996: pg. 101) that describes Aboriginal knowledge as "oral culture in the form of stories and myths, coded and organized by knowledge systems for interpreting information and guiding action...a dual purpose to manage lands and resources and to affirm and reinforce one's relationship to the earth and its inhabitants." Or as defined by the Chiefs of Ontario: "ATK can also be referred to as "traditional knowledge", "aboriginal knowledge", or "natural knowledge". ATK usually refers to those Aboriginal systems of knowledge as well as cultural practices and methodologies related to the production of knowledge based on traditional belief systems, relationships to the environment, and community practices…." (Chiefs of Ontario 2019).

It must also be acknowledged there are different terms for Aboriginal traditional knowledge, e.g. the Inuit use the term "IQ" Inuit Qaujimajatuqangit. IQ is basically the same as ATEK but also includes a technology aspect to its body of knowledge. It is still a body of knowledge based on cultural insights of the Inuit peoples regarding the land, humans and animals and their interactions (Government of Nunavut 2013).

To no small extent, Aboriginal groups across North America have been manipulating the natural environment for their benefit since long before colonization. Aboriginal groups around the world have used accumulated knowledge of their local ecosystems to sustain themselves, and have used this knowledge to manipulate the ecosystem for their benefit and continued existence. The Aboriginal groups on the plains of North America would periodically set fire to the grasslands minimizing the growth of large trees and creating an ecosystem favoured by the bison, their main source of protein. West coast Aboriginal groups would build "shelves" in coves on the Vancouver Island coast to promote the growth of mussels and kelp. (Menzies 2006).

Traditional knowledge was gathered over generations and passed down verbally. This is one of the issues when attempting to both gather and utilize this valuable source of information. Burks (1992) points out that the use of the word "traditional" is also an issue as the knowledge base is constantly changing and adapting with each generation adding their own nuances. Thus, some researchers and Aboriginal groups prefer to use the term Aboriginal/Traditional Ecological Knowledge, or "TEK", as opposed to "Aboriginal Traditional Knowledge". Aboriginal Ecological knowledge has been defined by the US Fish and Wildlife Service as referring "to the evolving knowledge acquired by aboriginal and local peoples over hundreds or thousands of

years through direct contact with the environment. This knowledge is specific to a location and includes the relationships between plants, animals, natural phenomena, landscapes and timing of events that are used for life-ways, including but not limited to hunting, fishing, trapping, agriculture, and forestry" (U.S. Fish and Wildlife Service 2019: pg. 1). The Gixaala First Nations of British Columbia have defined TEK as laws (Ayaawk) that govern the way people and nature interact (Aboriginal culture in general) (Menzies 2006).

The main difference between ATK and TEK is that TEK actually evolves with each generation and is not a stagnant or fixed knowledge system. As the ecosystem evolves so does the knowledge base. So, as the climate changes and effects local ecosystems the knowledge base expands.

In my research I combine ATK and TEK and refer to this combination as Aboriginal Traditional and Ecologic Knowledge, or ATEK. ATEK can be defined as a combination of the traditions, ceremonies, customs and practices associated with the natural world, as well as the evolving knowledge base of the ecosystems the Aboriginal group has occupied for its entire history. It is still a highly specialized but local knowledge base. ATEK is confined to an Aboriginal culture's traditional territory.

Western science also needs to be understood and defined for the purpose of this paper. In comparison to ATEK Western science tends to favour a more analytical and reductionist method for defining the natural world and natural systems. Western science is positivist and materialistic in contrast to the apparent spiritualism of ATEK (Mazzocchi, 2006) The main distinction between the two knowledge systems is the inclusion of humans as a part of nature and natural systems in ATEK as opposed to the separation of the human actor in Western science. The spiritual aspect of ATEK lends itself towards a qualitative data approach where the humanistic nature of western science, largely reductionist, is far more quantitative and is passed on through academic literature. The reductionist aspect of Western science tends to isolate objects from a system putting them in simplified and controllable environments (Nakashima & Roue 2002), contrasting with ATEK's holistic understanding of not only objects but their effect in and the effect of their environments. There is an uncomfortable coexistence difference in the manner in which ATEK and western science are gathered. Western science is externally driven, where the researcher separates themselves from the subject they are studying. ATEK researchers (an aboriginal research methodology), immerse themselves into the research and become a part of

what they are studying (McGregor 2010).

It is the misunderstanding of ATEK as a spiritual knowledge base that causes some issues with inclusion in current policies for parks and protected places management. Frances Widdowson feels the "incorporation of traditional knowledge into public policy more generally results in incorrect assumptions since spiritual beliefs cannot be challenged" (Widdowson, 2006). This is however a misconception of what ATEK actually is. Undoubtedly there are spiritual beliefs incorporated, but when analyzing traditional knowledge there is a distinction between the ecological knowledge and the spiritual aspects which can be separated to help inform policy for resource management. This is a fundamental challenge for those working with ATEK to understand the difference between the spiritual and the ecological knowledge. Unfortunately, the two are often so intertwined, that only a person who truly understands ATEK can tell the difference. Widdowson's views are at the root of reasoning for the exclusion of ATEK, and why so many studies tend to evolve towards a land use patterns study, excluding information from stories, in favour of the quantitative data that can be shown in mapping.

In June 2014 the Supreme Court of Canada passed a decision in the case of "Tsilhqot'in Nation v. British Columbia (2014 SCC 44) in favour of the Tsilhqot'in First Nations. The case affirmed the First Nations had title over the lands and resources within the region they claimed as their traditional territory. Tsilhqot'in use of ATEK to establish prior occupation and use of resources in the area despite the nature of the communities being semi-nomadic, opened the door for other Aboriginal groups in Canada to establish title and control over the land and resources within their own traditional territory.

For an Aboriginal community to assert title and assume management control of their traditional territory and natural resources they must demonstrate they have a "Blueprint" for economic and social development (McInnes and Copper, 2018). The basic information to form the foundation of this "Blueprint" for progress can be found in the community's ATEK. Once land use plans have been completed there is a need to ensure the resources within the territory are utilized to produce the maximum benefits for the communities while still ensuring Aboriginal treaty and rights are protected.

By revisiting ATEK studies and looking into the stories about how, why, when, activities took place a great deal of ecological information can be extracted. This is the information that can be used to create natural resource or park management plans the Crown is looking for. This

methodology will ensure Aboriginal values are protected. Properly conducted and utilized ATEK studies will make the difference in future land claims, resource development and federal, provincial and territorial park planning. Currently, many ATEK studies are conducted in part with resource development projects such as mining and pipelines. The projects are often funded by the project proponent and conducted by consulting companies retained by the proponent. The studies' terms of reference often reflect the outcomes the proponent is hoping to see. It is rare that these companies have the background or experience to truly understand the information they are gathering in an ATEK study. Information gathered in the ATEK study will be translated into a westernized science (WES) format, or a quantitative form such as maps, that is easily accepted by decision makers but degrades the validity of the ATEK. Although the façade of cooperation is there, power is taken away from the Aboriginal communities. Credibility also tends to be given to traditional knowledge when it compares favourably with observations and explanations generated by scientific means (Sillitoe, 1998; Raffles, 2002).

2.2 Parks and Protected areas and Aboriginal Peoples

Parks and protected areas epitomize an effort to retain and restore ecosystems to their natural state. In recent years, both Parks Canada and Ontario Parks have made biological diversity a management priority for parks and protected areas. This refocusing has come with a realization that Aboriginal Peoples have something to offer regarding biodiversity conservation, protection and promotion (Enns & Littlechild 2018). While Parks Canada and Ontario Parks are working towards the inclusion of Aboriginal partners in the design and management of parks and protected places, they have not discussed how this inclusion will be accomplished. For example, in the last *Ontario Protected Areas Planning Manual and Guideline* (Ontario, 2014), the section regarding including ATEK offers no advice on how ATEK can be used to guide or inform management planning -- it only discussed opportunities for "promoting awareness' and opportunities for Aboriginal communities to review planning documents. The leading thoughts on insuring inclusion would be to use ATEK to reach this goal through cooperative management agreements where Aboriginal communities are given equal roles in the development of the management plans; however, in review of both federal and provincial policies for parks planning, there are no procedures to gather or to interpret the ATEK, or to incorporate it into the planning process, leaving the process up to the individual parks managers. For national parks,

the initiation of modern land claims brought a significant change in the views of parks managers as well as those who create the national policies (Langdon, et al. 2010). A cooperative approach was the new standard for not only the creation, but the continued management of parks and protected areas. In 1993, negotiations with the Inuvialuit on new park creation in the comprehensive claims process were a significant move towards creating a national policy (Langdon, et al. 2010). For the first time, Parks Canada entered into a joint management agreement where representatives of Aboriginal groups would play a part in the management and decision making process.

In 1994, the Parks Canada “Guiding Principles and Operating Policies” (Heritage Canada 1994) were amended to take into consideration the growing number of Supreme Court of Canada ruling regarding Aboriginal land rights. The new policies reflected changing political and social values as in some national parks, traditional activities continue because of land claim agreements and treaties, or agreements negotiated during the process of establishment (Dearden et. al. 2016).

With shifting ideals related to a call for greater recognition of aboriginal rights, in 1972, Parks Canada created a new category of park. An amendment to the Canadian National Parks Act in 1972 created a new national park reserve category, meaning the land would be under the management of the federal agency until such time as the Aboriginal communities had negotiated a final agreement for their comprehensive land claim, and finalised land selections and co-management processes. Further, the new designation recognized Aboriginal peoples did not surrender their Aboriginal rights as defined under the 1982 Constitution or subsequent Supreme Court rulings. Such is the case with both Kluane National Park and Reserve in the Yukon and Nahanni National Park and Reserve in the Northwest Territories (Langdon et al, 2010). Given the widespread desire of Aboriginal people to protect and preserve their traditional lands, the support for the new parks model initiative grew and as of 2012, there were about 40 such agreements in place for the cooperative management of lands (Dearden et al, 2016). Again in 1988, the National Parks Act was updated, this time to recognize the right of Aboriginal peoples to harvest within park boundaries where the Aboriginal peoples had an active land claim (Dearden et all, 2016). The Act was further amended in 2000 to include aboriginal rights to sustainable harvesting of traditional resources in national parks by Order in Council. Many of the national parks in the north have harvesting agreements, as do several southern parks such as Pukaskwa in Ontario, Gulf Islands, Gwaii Haanas, and Pacific Rim in BC (Dearden et al, 2016).

While these changes mark progress in the policy process for acknowledging Aboriginal rights, they are still not a guarantee Aboriginal peoples will be included in the management process of parks and protected areas. The policies, while made at a federal level, are still very slow to move across the country and develop formal agreements with Aboriginal peoples as a whole; rather the agency seems to leave the decision to the individual parks managers of whether to have a relationship with the local Aboriginal people, and develop cooperative management agreements.

Many papers explore the potential for Aboriginal groups and governments to achieve successful forms of collaborative governance of protected places. These include the rise of the tribal parks as described by Murray and Burrows, Usher, Halpenny, and the move to work on collaborative management such as Speilmann & Unger, Langdon, et al. and Stevens (Murray & Burrows 2017, Usher, Tough, Galois, 1992, Halpenny et al, 2003; Speilmann & Unger 2000, Langdon, et al. 2010, Stevens, 2014).

Both Parks Canada and Ontario Provincial Parks have had a long history with Aboriginal peoples (Killan,1993, Langdon, et.al., 2010). For the province of Ontario, as with National Parks, many parks and protected areas were created at a time when Aboriginal rights were not acknowledged (Dearden, et.al., 2016). As such, Aboriginal peoples were often forced to relocate and denied access to the lands they once occupied (Enns & Littlechild, 2018). Parks in Ontario were created for many of the same reasons as with National Parks, and in the early formation, with very similar policies. Leading reasons for the creations of parks was recreation, tourism, protection and heritage (Speilmann & Unger 2000).

With over 300 years of broken promises between the Crown agencies and Aboriginal communities, including provincial agreements, there is a high level of mistrust in Crown relations (Speilmann et al. 2000). Many Aboriginal communities feel they have had no choice but to educate themselves about the government's process as they felt they were not being told the whole story about management process and policies (Speilmann & Unger 2000).

While there is a long history of colonialist attitudes in the creation and management of parks across the country, there has also recently been a shift away from this attitude. Wood Buffalo National Park was created in 1922 and has long been an example of how Parks Canada and Aboriginal peoples could work together. Early management plans would allow for the continued harvesting practices of the Aboriginal peoples, acknowledging the traditional activities

practised by the Aboriginal people would have no negative impacts on protecting the wood bison (Langdon, et. al., 2010). This, however, was essentially the only exception where Parks Canada allowed the continued traditional use of the resources within a park's boundaries. Where Aboriginal communities were placed on a reserve that happened to coincide with a proposed national park, the aboriginal communities were encouraged by Parks Canada to sell or trade their lands for lands outside the proposed park boundaries. This also meant they no longer had the rights to hunt, trap, fish or conduct traditional activities in the new park (Dearden et al, 2016). During this time, parks selected would represent an excellent example of ecological significance, but they would ignore the social situations the area represented.

In the 1970's, Parks began to understand the significant contribution Aboriginal peoples could make to the ecological and social integrity of an area (Dearden et al, 2016). In the non-renewable resources sectors of oil and gas the Burger Inquiry represented a deeper look into the social side of non-renewable resource activities. The Inquiry looked at the feasibility for a natural gas pipeline to be built along the Mackenzie Valley in the Northwest Territories. The recommendations that came from the Burger Inquiry represented a fundamental shift in the manner the Crown dealt with Aboriginal communities in resource management. (Dearden et al, 2016). The Berger Inquiry also commented on new parks in the region, and influenced much consultation and assessment practice in the years since.

A new social movement to include Aboriginal peoples in parks and protected places management has been prevalent since the late 1980's. Since the ratification of the Canadian Constitution in 1982 and the inclusion of section 35 which protects Aboriginal rights in Canada, provincial and federal governments have been looking for constructive and meaningful ways to include Aboriginal peoples. Their efforts have been bolstered by a series of Supreme Court of Canada case rulings giving strength to Aboriginal peoples' rights and treaties to access lands and resources previously annexed from them through parks and protected places development. Court rulings such as the Guerin (Guerin v. The Queen, 1984), Sparrow (Sparrow vs. The Queen, 1986) Delgamuukw (Delgamuukw vs. Auditor General of British Columbia, 1997), Haida Taku River (Ringstad & B.C. Ministry of Environment et al. vs. Taku River Tlingit First Nations, B.C. Minister of Forests v. Haida Nation, 2004), and Miskisew Cree (Miskisew Cree First Nation v. Canada. Minister of Canadian Heritage, 2005) decisions have worked to sway policy and decision makers in governments and increase their efforts for Aboriginal inclusion in not only

parks and protected places management but also in natural resource management; and have helped Aboriginal peoples restore access to the resources in the parks and protected areas.

In March 2008, Parks Canada released *A Handbook for Parks Canada employees on consulting and accommodation with Aboriginal Peoples* (Parks Canada 2011). This document was a collaboration of efforts from Parks Canada, Dehcho First Nations and the Labrador Inuit. This handbook was developed in part as the results of Parks Canada negotiations with the Dehcho First Nations to expand Nahanni National Park and Reserve.

The Ontario Ministry of Natural Resources, who were in charge of parks and protected areas management, created "Ontario's Protected Areas Planning Manual and Guide" (OMNRF 2014) which outlines the steps and process for the selection, design, and ongoing management of protected areas. The OPAPMG outlines the necessary steps for the inclusion of Aboriginal peoples in the process for the creation of new protected areas. The OMNRF recognizes the importance of including Aboriginal peoples in the planning process, stating that "Aboriginal communities can be used to inform management decisions throughout planning." (OPAPMG, 2014, pg., 3). OMNRF goes on to say that "if it is discovered that Aboriginal treaty rights may be affected, OMNRF has a legal duty to consult and, if appropriate, make accommodation…." (OPAPMG, 2014, pg. 3).

While there is change in the attitudes of Parks Canada and Ontario Parks, it is not consistent across the country, or in the province of Ontario (Dearden et al., 2016). The role of aboriginal peoples in parks in the Northwest Territories, for example, is far more significant than it is in southern Ontario. With the comprehensive land claims in the Northwest Territories, Parks Canada needed to come up with a new method for the creation of national parks and protected areas (Langdon, et al, 2010).

Canada is working on a process to meet the promise to the United Nations to protect and effectively manage 17% of its terrestrial ecosystems and inland waterways, plus 10% of its marine and coastal ecosystems by 2020. But how Canada is going about this is a question of concern for Aboriginal communities across the country. It is for this reason, Aboriginal communities are taking the lead in the protection and conservation of significant areas (Suzuki, 2018).

2.3 Aboriginal Resource Management, ATEK and Consultation

As previously discussed, a pivotal Supreme Court of Canada ruling was in 2014 for the Tsilhqot'in First Nations. The ruling was ground-breaking for Aboriginal title on lands. The Supreme Court elaborated on what Aboriginal title is, as well as outlining a complicated test to prove Aboriginal title, following with a decision that, where there is Aboriginal title the government (Crown) must seek consent of the Aboriginal title holders to proceed with any development of the lands or the resources found on or under those lands (McInnes and Cooper, 2014). The test for Aboriginal title is based on sufficient and continuous exclusive occupation by a First Nations prior to European settlement of claim and does not restrict the occupation based on the nomadic or semi-nomadic lifestyle of the Aboriginal peoples claiming title (McInnes and Cooper, 2014). For an Aboriginal group to claim title the use of ATEK is vital. In-depth studies will show the continued and exclusive use of the lands.

Even before the Tsilhqot'in decision, ATEK has been considered an important addition to any natural resource management plan. The reason to include ATEK in resource and environmental decisions comes from two sources. First, some contemporary western scientists and academics believe ATEK will add new depths of information to sustainable resource planning (Ellis, 2005). By incorporating ATEK into current resource management, a new depth of information can be brought into the picture. As already discussed, ATEK is based on generations of observation on the land and animals, as well as human interaction with the environment. Western science may have less than a decade of observations in a particular ecosystem. It is in combining Western and ATEK that the potential for impacts on environments can be predicted with greater accuracy (Ellis, 2005).

As with Parks and protected places management, environmental and resource management has largely been the domain of the Crown and industry, with little input from those who live on the lands and are most directly affected by the proposed development. Natural resource management is, however, the central theme in almost every Supreme Court of Canada decision where Aboriginal groups are seeking to protect their constitutional and treaty rights. It would follow that to reduce the number of Supreme Court cases, it would be prudent of the government to ensure the inclusion of Aboriginal groups in the planning and decision-making process.

Building resilience in natural resources also works to protect Aboriginal rights, and treaty rights. Using adaptive co-management of natural resources can have a positive effect on

Aboriginal communities and help create a sustainable economic future for those communities involved with the management. Adaptive co-management offers communities the opportunities to develop economic activities such as tourism, selective forestry, partnership with extractive industries, or micro-hydro development. All the economic development activities could be done in sustainable manners building off of traditional resource management practices based on ATEK. Further, cooperative management works toward the Canadian government's goals of reconciliation with Aboriginal peoples. Impact benefit agreements ought to be worked into any land negotiation taken on by Crown agents when seeking to create new parks and protected areas. In accordance with Supreme Court rulings, the Crown has obligations to insure engagement activities. It is the lack of engagement that continues to hamper any progress in creating positive relationships and reconciliation with Aboriginal groups. There are issues with cooperative management that would need to be resolved, such as trust, equality in the process, group's capacity to contribute and participate in management and, finally, understanding each other's knowledge systems.

In Ontario the Ministry of Natural Resources, Ministry of Environment, and the Ministry of Northern Development and Mines have often been in conflict with Aboriginal communities. The reason is the Aboriginal communities are witnessing direct negative effects of the mining and forestry industry in their traditional territories. The provincial Ministries are pushing industry to enter into Impact and Benefit Agreements (IBA) with communities to lessen the burden of both the duty to consult as well as the adverse impacts to the communities. However, IBA's really are a method for the privatisation of Aboriginal treaties, and are often re-negotiated ever few years until the end of life of the resource development activities. IBA's are privately negotiated agreements between corporate resource companies and Aboriginal groups, they are upheld under private contact law (Fidler, 2008). Both the federal and provincial governments encourage Aboriginal groups to seek and negotiate IBA's for resource development activities (Keilland, 2015). Despite the Crown encouraging the negotiation of IBA's with industry, where Aboriginal rights are potentially adversely affected, the negotiation of IBA's does not appear in either Parks Canada or Ontario Parks planning and guidance documents when the Crown is seeking to create new, or update the management plans for parks and protected areas.

Cooperative management promotes participation in decision making and links the communities to the governments (Armitage, et al 2007). This sort of management model has

been employed across the country with mixed results. Many believe collaboration with Aboriginal communities and park agencies can result in greater success in protecting biodiversity and cultural heritage goals (Halpenny, et al. 2013). Others see the rise in cooperative management agreements as an ad hoc and possibly temporary solution to the policy issues facing parks agencies (Berkes & Henley, 1997). Given the number of obstacles to building these agreements and relationships, as well as working towards establishing meaningful cooperative management, it would be of great benefit to have some clarity on this vital component.

It is the hope of this paper that given the vast quantity of academic theory in the growing fields of cooperative management and Aboriginal inclusion that there will be some commonalities which can be used to create some sort of guidance document to help both Aboriginal communities and the Crown agents working with them to create the meaningful partnerships for parks and protected places management and help work towards reconciliation in a meaningful manner.

3 Methodology and Methods

This chapter provides more detail on the overall methodology, and methods used in the research. First the methodology will be introduced, then the document analysis approach, and finally the case-studies are introduced along with the approach to their analysis.

3.1 Methodology

This research used an exploratory, qualitative, literature-based, case-study approach. This research is exploratory because use of ATEK in parks and protected areas planning is in its infancy, and there is no standardisation of even what is needed, never mind the approaches for how to implement, or use ATEK in parks management. To date, there are no federal or provincial park agency policies, or best practices in directing staff in utilizing ATEK. A qualitative approach is useful for examining information gathered through different methods and comparing the results of multiple case studies. Analysing multiple sources helps reduce the potential bias of a single study (Bowen, 2009). The case-study approach was appropriate for illustrating the wide diversity of challenges and approaches in use of ATEK in parks and protected areas planning. A case-study approach allows for the comparison and give larger amount data for understanding the approach of two levels of government, where their strengths and weaknesses lay.

3.2 Literature and Document Analysis

Drawing on existing papers, federal and provincial policies and policy analysis, and a National Parks Memorandum of Understanding Management for Nahanni National Park Reserve (Parks Canada & Dehcho First Nations 2001), and Ontario Parks Cooperative Management plan case-study I will seek to address the research objectives to help find a more effective, efficient, and consistent method to incorporate ATEK into the protected areas and park planning process.

Using current agreements between Ontario Parks and Pikangikum First Nation I will analyze the current methodologies employed by the Ontario Parks and offer strategic advice for the incorporation of ATEK into the planning and management process. Through a review of current policies and management plans set up by the governments of Canada and Ontario, specifically, Parks and Protected Places Management Policies and Planning, I will begin to understand the current practices for Aboriginal inclusion and understand where the gaps in process lay.

Gathering the academic literature to support my case study analysis I utilized several on-line academic scholarly research tools such as Google Scholar, Wilfrid Laurier Library, University of Waterloo library, University of Saskatchewan's School of Indigenous Studies, Research Gate, and Scholars Portal. I also searched non-academic professional literature and non-government organizations such as The Suzuki Foundation, and IUCN.

Key terms to conduct my literature search are outlined in the following Figure 3.1:

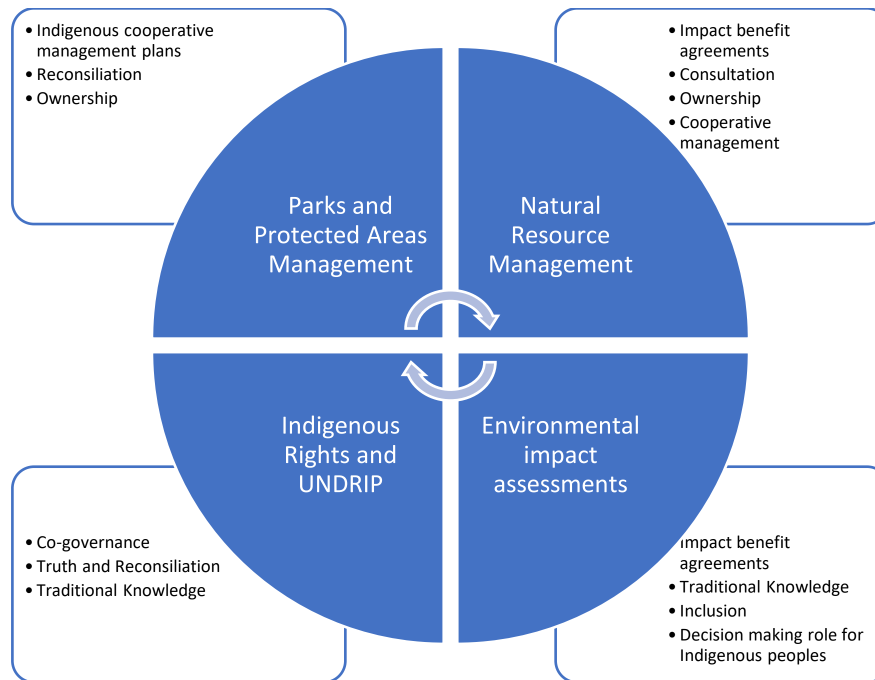

Figure 3.1: Conceptual Framework and key research terms

Initial searches for ATEK in Parks and Protected areas came up with very little. Initial search words included Aboriginal Traditional Knowledge, Traditional and Ecological Knowledge, Parks Management, and cooperative Parks Management. When the search was refined to First Nations in Parks Management, two new streams of research were added. First Nations Co-governance or natural resources, and aboriginal peoples in Parks Management. In co-governance of natural resources, a great deal of work has been done in Adaptive Co-Management, collaboration, and cooperative management for inclusion of Aboriginal peoples in parks and protected areas, as well as in resource management.

Aboriginal peoples in parks management was another very informative area for academics. Here there is also a large amount of information from non academic sources and Aboriginal organizations.

The final area my research showed as relevant to this area of study was First Nations and Natural Resource management. This stream combines works from cooperative governance as well as Environmental assessments. Work here centers around the legal arguments for the involvement of Aboriginal communities in the management decisions of the land use planning and natural resources they have used since before European contact. While all relevant divisions of academic literature mention to varying degrees the use of ATEK, none go so far as to begin describing how ATEK can be used to support or even create Parks and protected areas management plans.

The document analysis was undertaken using a set of initial themes to watch for in reviewing the documents. These themes were developed from my experience and the literature review. They were:

Aboriginal Traditional and Ecological Knowledge	National Parks Management	Protected Areas Management
Using Aboriginal Traditional Knowledge	Provincial Parks Management	Aboriginal inclusion in Parks Management
Aboriginal Involvement	Natural Resource Management	Cooperative Management in Parks Management
Reconciliation	Forestry Management	Aboriginal Consultation
Accommodation	Aboriginal Lands Management	Aboriginal Rights in Parks and Protected Areas

Figure 3.2: Key themes of literature research

It is important to understand how this research contributes to the literature. The literature review has been conducted in a systematic manner to evaluate, and summarize the collective works (Creswell, 2018) A thematic approach involves the identification of the key or reoccurring themes and lends to a comparative analysis, helping to understand where more research is needed (Dixon-Woods, et al. 2005). By introducing new concepts, or synthesising older concepts from literature that is considered dated, and by showing there is currently a gap in literature specifically studying the application of ATEK can build bridges between other related topics such as Environmental Impact assessments and land use planning. The framework for conducting this study is largely constructed as a result of the apparent lack of focus on implementing, or including, ATEK in management plans in a consistent manner. A case study approach helps create a benchmark for comparing the results with other similar studies (Creswell, 2018).

3.3 Introduction to Case-study regions

There are two case studies I will analyse and compare to illustrate current Park Canada and Ontario Parks policies for Aboriginal inclusion. Both sites have received UNESCO World Heritage designations. One is Nahanni National Park and Reserve managed by Parks Canada; the other is the Whitefeather Forest Area, in northern Ontario which includes a provincial park within its boundaries. The Whitefeather area is considered a protected area, but under the management plan allows for extractive industries, which is very unusual and is a major reason the area merits further examination.

Nahanni National Park and Reserve is in the Dehcho region of the Northwest Territories. In 2004-06 I worked for the Dehcho First Nations as their Resource Management Coordinator. A large part of my time was taken in the development of management plans for parks and protected areas within the Dehcho Region. The basis for the management plans was a year of community engagement and traditional knowledge studies. I was also a member of the Dehcho team negotiating the park expansion plans and updating the management plans. During this time, I was struck with the desire of the local Parks Canada management team to work with the Dehcho Elders and incorporate their knowledge, but their inability to maneuver around their Agency policies for creating management plans. Given my knowledge of the history and background for the expansion of the park, Nahanni was a natural fit for this study.

The second case study is Cheemuhnuhcheecheekuhtaykeehn dedicated protected areas in the Whitefeather forest of Northwest Ontario. For a number of years, I also worked for the Ontario Ministry of Natural Resources and my primary focus was working with Aboriginal communities in partnership and relationship development. I sat on a number working groups and policy steering committees geared towards cooperative natural resource management planning. While I did not work directly with the Whitefeather project, I did have some input in forestry management planning policies and park policies. Whitefeather has also become a part of the first site in North America to receive a double designation from UNESCO World Heritage Sites as a cultural and natural world heritage area. For this reason, the Whitefeather Cooperative Management Agreement is of significant importance.

Choosing the right two case studies was a difficult decision. There are now many relevant ongoing planning projects in Ontario and across the country. For example, Wood Buffalo National Park in Alberta and Northwest Territories would be an excellent choice given the park’s

history, involvement with Supreme Court of Canada rulings regarding consultation and the ongoing disputes with the current operations and management plans. A great deal has already been written about Wood Buffalo, and I have worked and continue to work in the area with the First Nations in Alberta and NWT. But given the Dehcho work I have done, the recent agreement signed between the Dehcho First Nations and the Canadian Minister of Environment giving the Dehcho First Nations the management of protected areas within their traditional territory (Bird, 2018) and the information that is publicly available, Nahanni National Park and Reserve was chosen as my federal case.

The goal of the Cheemuhnuhcheecheekutaykeehn (dedicated protected areas in the Whitefeather Forest) and Nahanni Park Expansion case studies is to examine the current cooperative management framework and analyse the mechanisms for incorporating ATEK into management and see if there are any areas for improvements, lessons learned that can be transferred.

3.3.1 Nahanni National Park and Reserve

The Dehcho Dene people have lived on and used the land around what is now known as Nahanni National Park and Reserve for thousands of years. Evidence of their occupation dates back over 10,000 years, and that, as the Elders like to say (Dehcho First Nations Annual Assembly 2004), is when they made their first mistake and left evidence of their occupation of the lands. There are traditional stories of a tribe of mountain dwellers called the Naha, who would often come down from the mountains to raid the lowlands groups (Tetso, 1994). European fur traders first appeared in 1700 when Alexander Mackenzie explored the region and changed the river's name from the Dehcho to the Mackenzie river, and built trading posts at what are now known as Fort Simpson and Fort Liard (Parks Canada 2019).

Nahanni National Park and Reserve was created with an order of council in 1972 after a visit by then Prime Minister Pierre Elliot Trudeau. The park was established after public debate over the south Nahanni River and Virginia falls and whether it would remain a free-flowing wilderness river or be developed for hydroelectric power. The area is to remain in reserve status until the Dehcho First Nations settle their long-standing land claim (Parks Canada 2005). Nahanni National Park and Reserve is situated in the southwest corner of the Northwest Territories (see map 3.1) and is entirely within the Dehcho First Nations traditional territory. The

River for which the park is named flows through the Mackenzie Mountain range for over 500 km to where it meets with the Liard River. Originally named for the tribes of mountain people from traditional stories, the area remains both culturally and naturally significant. It is one of the only examples of a karst geology in the region, and is recognised as an internationally significant example of a karst geography (Nahanni Management Plan, 2010).

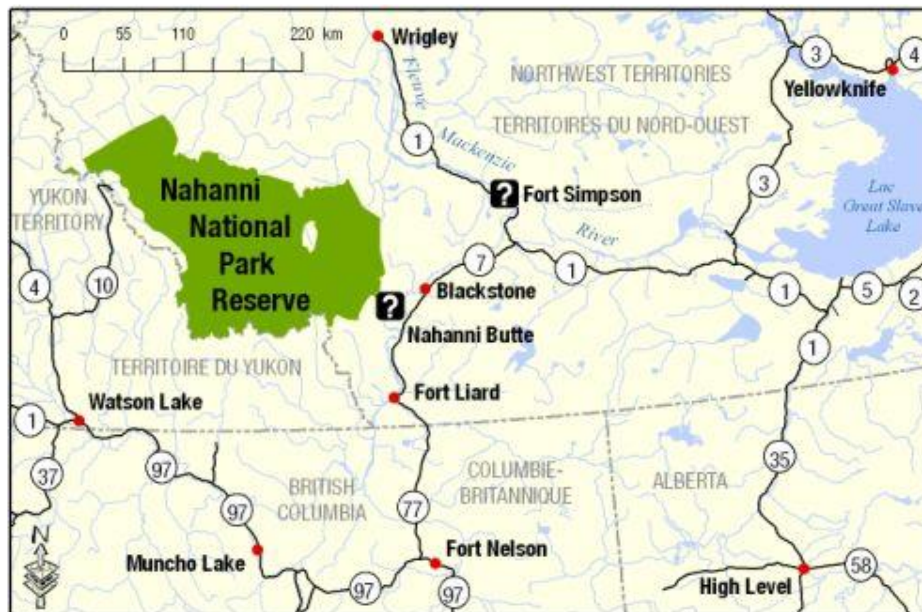

Figure 3.3. Nahanni National Park and Reserve (Parks Canada, 2010: pg.2)

3.3.2 Cheemuhnuhcheecheekutaykeehn (Whitefeather Forest)

The second case study is the Cheemuhnuhcheecheekuhtaykeehn dedicated protected areas in the Whitefeather forest of Northwestern Ontario (see Map 3.2). In June of 2012, Pikangikum First Nations and Ontario Parks signed a letter of agreement to create a partnership framework for managing the protected area. Cheemuhnuhcheecheekutaykeehn, or the Whitefeather Forest Area is the traditional home of the Pikangikum First Nations. It is the headwaters for the Berens River and borders Woodland Caribou Provincial Park in the south and southwest, and the Red Lake and Trout Lake Sustainable Forest License in the south and southeast, the Albany River to the east and the Severn River to the north. The Whitefeather area covers just over 1.3 million hectares.

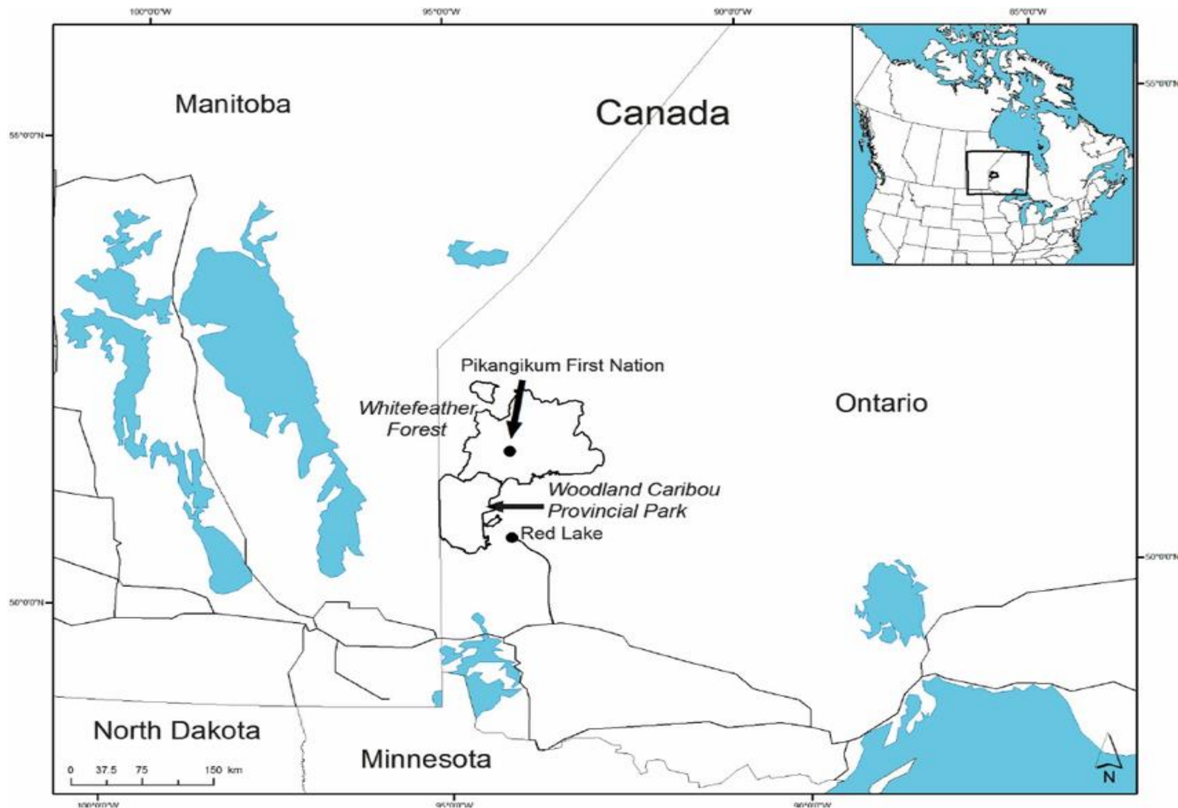

Figure 3.4. Whitefeather Protected Forestry (Pikangikum First Nations, 2016)

The Whitefeather forest area is the traditional territory of the Pikangikum First Nations (PFN). Since time immemorial the PFN has lived and thrived with the land. Pikangikum people have lived in harmony with the Whitefeather forest area and helped preserve and protect the biological diversity of the boreal landscape. Through traditional ecological knowledge the Pikangikum people have supported the rich environment, from planting wild rice, to using fire as a management tool to increase the productivity of marshes where muskrat, ducks and fur bearing animals live. Pikangikum First Nations have shown the use and propagation of resources in their traditional territories through the traditional use of fire. Their story explains how they came to the knowledge that fire is a tool for maintaining the productivity of plants and the trophic interactions between organisms (Miller 2008).

The Whitefeather is a northern Boreal forest landscape dominated by lakes and rivers. The ecosystem is inhabited by black bear, caribou, moose, timber wolves, wolverines, fox duck geese, bald eagles and sandhill cranes. The primary economic activities are base din the natural resource sectors and include tourism, primarily with the inclusion of Woodland Caribou

Provincial Park, and forestry, both non timber forestry and traditional forestry activities. While the region does have the potential for mineral exploration, there are currently, and have never been any mines sites.

3.4 Case-Study Analysis

A case study approach has been used to identify and compare two parks and protected areas from different regions in Canada and under separate Crown agencies, one Parks Canada and the other, Ontario Parks. that are both managed under similar systems with similar histories f working with Aboriginal peoples. A comparison of provincial and federal government approaches focus is to identify similarities as well as differences for the inclusion of ATEK in parks and protected areas management. A comparison will show where best practices can be drawn from one Crown agency and applied by the other.

The framework for analysis and comparison will be the identification of key words and terms and their use in the corresponding management plans. The core questions to be addressed by examining the occurrence of the themes identified in Figure 3.2 are:

Nahanni National Park and Reserve	Whitefeather Forest Protected Area
How does Parks Canada include ATEK in management plans	How does Ontario Parks include ATEK in management plans?
How does Parks Canada include Aboriginal participation in management	How does Ontario Parks include Aboriginal participation in management?
Does Parks Canada have a consistent approach in cooperative management with Aboriginal communities?	Does Ontario Parks have a consistent approach in cooperative management with Aboriginal communities?

3.5: Case study guiding research questions

4 Results

In the following sections I have reviewed the park management plans as well as other relevant documentations, such as cooperative management agreements, or Crown guidelines/policies for working with Aboriginal communities. I have looked at each management plan or cooperative agreement to determine the methodology for Crown inclusion of ATEK into the management plans.

As discussed in section 3.4, I have reviewed the management plans as well as relevant provincial and federal documents and guidelines for planning and management of parks and protected areas, using key words such as Aboriginal Engagement, Cooperative Management, Aboriginal Traditional Knowledge, Aboriginal inclusion.

4.1 Nahanni National Park and Reserve

The Dene people of the Dehcho region began researching and compiling their traditional knowledge in the 1960's with the goal of creating a system of self governance. The Dehcho people wanted to reclaim their traditional lands and control over the surface and subsurface resources within their traditional territory and in 1998 officially entered into Dehcho Process, land claim negotiations with the Government of Canada (Nadli, 1998).

The south Nahanni river was first identified as a potential national park in 1963 when a proposal to for a hydro-electric project was put forth for the development of the south Nahanni's falls and canyon. Later, in 1970, then Prime Minister Pierre Trudeau traveled the area and subsequently the initial land withdrawal was made though an Order-in-Council (Tate, 2003).

When the park was initially created, the Dehcho were excluded from the management planning of the area. It was not till the late the 1990's when Parks Canada began the process for planning revisions and potential expansion by initiating the Ecological Integrity Statement, that the Dehcho First Nations were included. Members of the Dehcho communities where given positions on the research steering committee. Resulting from this, in 2000, as part of the land claim negotiations a proposal from the community of Nahanni Butte, along with the Dehcho Leadership, proposed to include the entire South Nahanni watershed as a part of the interim land withdrawals was put forth (Tate, 2003).

In 2000 the Dehcho First Nations and the Minister of Canadian Heritage created the Nahʔą Dehé Consensus Team. The Nahʔą Dehé Consensus Team was given four primary tasks, and these included:

1. prepare an Ecological Integrity Statement,
2. complete a review of the Park Management Plan,
3. prepare an Interim Park Management Arrangement, and
4. prepare a Memorandum of Understanding Respecting Park Expansion. (Nahanni Management Plan, 2010: pg.3)

In 2001, the Dehcho First Nations and Government of Canada negotiated the Interim Measures Agreement (Dehcho First Nations, 2001) which outlined how the two parties would continue to work together towards a self governance land claim. The Dehcho process is made up of three agreements with the Government of Canada, most importantly for the Nahanni Park is the Interim Measures Agreement, which deals specifically with the management of Nahanni National Park and Reserve.

Section 59 of the Interim Measures Agreement states:

> "Canada and the Dehcho First Nations will negotiate for the purpose of reaching an interim management arraignment that takes into consideration models found in existing arraignments between Canada and Aboriginal people respecting the management of National Parks." (Dehcho Interim Measures Agreement pg. 13, 2001)

Through the Dehcho Process, which outlines how the Dehcho and Parks Canada will work together to achieve cooperative parks management, Parks Canada and the Dehcho First Nations negotiated the Interim Park Management Arrangement (IPMA), which give a more specific outline of how the two parties will work together to negotiate the expansion of Nahanni. When these tasks were completed in 2003, the role of the Nahʔą Dehé Consensus Team shifted and this group became dedicated to the ongoing cooperative management issues associated with the Interim Park Management Arrangement.

One of the first issues that is outstanding in the IPMA is the line that the agreement will be in place "until such a time as the National park is established." Which as discussed will not happen until the Dehcho First Nations settle their land claim, and it is unlikely the parties thought it would take over 40 years to come to a settlement.

A second issue with the IPMA is section 10 b) “cultural activities and traditional renewable resource harvesting activities by Dehcho First nations set out in section 8(a) and 8(b) above

i) the examination of their scope and extent,

ii) any proposal for related construction, including the cutting of trees which are essential for this purpose and for which there is no reasonable alternative source of materials outside Nahanni National Park Reserve (Interim Park Management Agreement, pg. 3, 2003)

While all activities within the park boundaries will go before the Consensus team, this section implies Parks Canada has a say in what activities constitute Dehcho First Nations traditional activities.

Further, the agreement sets out using other management models between Aboriginal peoples and the government of Canada as a template. The issue here is this is a unique park in the Northwest Territories, with Parks Canada acknowledgment that the land was never ceded to the government, and Aboriginal traditional activities continue to take place.

Parks Canada’s policy guidebook for consultation with Aboriginal peoples was first released in 2008 to help Parks staff navigate through the Supreme Court decisions and the related duty to Consult when they are undertaking any process that has the potential to adversely affect an Aboriginal community’s rights and treaty rights. The document states that under the National Parks Act 12 (1): “Provide opportunities for public participation at the national, regional, and local levels, including participation by Aboriginal organizations, bodies established under land claim agreements, and representatives of park communities…” (Parks Canada, 2008). In the process of expanding the park boundaries, Parks Canada had a legal obligation to work with the Dehcho First Nations and engage in the development on the new boundaries and management plans. The guidelines do not, however; give any guidance on how the inclusion of Aboriginal community rights should be implemented. As we have already discussed, there are some national parks that have working cooperative management agreements with the local Aboriginal peoples, but it is largely ad hoc. Parks Canada has yet to release any guidelines to aid parks planners in their work with ATEK inclusion. As we will see with Whitefeather, the stage is set for Parks

Canada to create a new version of their policies for parks and protected areas planning, but it is slow to act, and tends to take a reactionary rather than a proactive position.

There are established mineral claims and two existing mine sites (Canadian Zinc, and Canadian Tungsten) within the park expansion boundaries. The Canadian Zinc mine site is known as Prairie Creek, was originally issued a permit in the late 1970's, has not extracted any ore, is in rock heavily contaminated with mercury and thus poses a major concern for the Dehcho First Nations and park management (Kuyken, J 2004). The site also poses issues of land ownership as "The mining claims in which the (Company) has an interest have not been surveyed and, accordingly, the precise location of the boundaries of the claims and ownership of mineral rights on specific tracts of land may be in doubt" (Herb Norwegian, CBC radio, 2000). The Canadian Tungsten mine is on the northwest corner of Nahanni park, bordering the Yukon, and is known as the Cantung mine. It has been in operation since 1962. Canadian Tungsten and the Nahanni Butte Dene Band, a member of the Dehcho First Nations, have an Impact Benefit Agreement to monitor wildlife and water quality monitoring but the mining corporation does not have an agreement with the Dehcho First Nations (ReSDA, 2016).

The IPMA and the 2010 management plan are built around 4 tenets that are the driving force of the agreement. They are:

1. Recognizing and respecting traditional use
2. Sharing the stories of the traditional NahʔąDehé
3. Using traditional knowledge in park management
4. Supporting cultural learning. (Parks Canada, 2010: pg.3)

The IPMA spells out what cultural activities are acceptable for members of the Dehcho Communities to practice within the park boundaries. These are what has been acceptable or in accordance with Section 40 of the Canadian National Parks Act. This can be seen as a step forward for the removal of colonial legislation as it is a move towards restoring aboriginal rights to an area they were previously excluded from. The Nahanni region is, as stated, a greatly important traditional use area for both harvesting and ceremonies. The agreement moved the bar even higher with section 8 (a) in stating it would be the Dehcho Grand Chief who would direct the Dehcho members in the exercise of such activities.

The management plan is based in the traditional teachings of the Dehcho peoples, and includes principles that speak to traditional use, spiritual and cultural significance, which Parks Canada feels also underlay the intent and aspirations of Parks Canada values and management plans in other areas (Nahanni Management Plan, 2010).

The park management plans recognise ATEK as an important source of information to help guide the planning process. Specifically, ATEK is a data set that can be used to establish base line information on the various ecozones through out the park. ATEK is also used to help biologists establish wildlife and plant numbers and species, habitats, and areas of special concerns, such as the mine sites within the park boundaries.

4.2 WHITEFEATHER FOREST AREA

Since 1996 the Pikangikum First Nation has worked with the Ontario Ministry of Natural Resources to protect the Whitefeather forestry area by creating a land use strategy using the community Elders' knowledge with the end goal of creating a forestry-based community economy. The process was to ensure the continued traditional use of the forest area as well as providing economic opportunity for the Pikangikum youth (Miller, et al. 2008). Not only will the plan provide economic activities, but it will also have a strong focus on wildlife, particularly the woodland caribou. Whitefeather management plan will rely heavily on input from Elders. Elders have been working with OMNRF foresters and, using traditional knowledge, made the decision to allow wildfires to take a larger role in maintaining caribou habitat (Miller, et al. 2008).

In 2012 Pikangikum First Nations and the OMNRF signed a Letter of Agreement (LOA) for the cooperative management of the Cheemuhnuhcheecheekuhtaykeehn, or Whitefeather Forest. This agreement includes a commitment from Ontario Parks to work with the First Nations and create a cooperative management board and work towards a UNESCO Biosphere designation, which was achieved in 2018. The cooperative management group was to establish a "Dedicated Protected Areas Planning Team with a proposed terms of reference to integrate both Western and Aboriginal knowledge into the overall management plans" (Pikangikum First Nation 2012, pg.5).

The LOA with OMNRF and PFN establishes areas within the Whitefeather forest where traditional activities as well as new livelihood activities can be carried out, but still leans towards the crown's interests over the aboriginal communities. This new approach and agreement are

termed “Keeping the Land”. Under this program the land will be designated into areas for development such as hydroelectric, forestry, and mineral exploration. As per the agreement all new commercial opportunities within the protected area will be developed and managed in a holistic manner (LOA 2012). The approach will integrate ATEK and customary stewardship working in harmony with the broader Ontario responsibilities and obligations of the crown. It is this section that is of particular issue. There is no description of how ATEK will be incorporated, and the addition of the “broader responsibilities and obligations of Ontario lends to the crowns ability to override the spirit of the agreement to include ATEK.

Earlier, in 2006, Pikangikum First Nation completed its Strategic Land Use Plan called “Keeping the Land”. This was created without the help or input from the province of Ontario and used as a starting point in negotiations. As implied by the Tsilhqot’in Supreme Court decision, if an Aboriginal community can prove prior use or natural resources as well as a feasible plan for the economic development of an area, then they can take control of their traditional lands and resources. While the land use strategy PFN created was accomplished 8 years before the Tsilhqot’in Supreme Court decision, it does show the capacity within the nation to move forward with resource management. It also provides an example of braiding ATEK with western sciences to get the best result. PFN’s reason behind this exercise was to “be in the driver seat for economic activities taking place on our land” (Keeping the Land, 2006, pg. 4). It is important for Aboriginal communities be able to have economic opportunities for their youth, without, they are more prone to leave the community and head south. Taking control of their land was an important first step in the development of the overall Whitefeather Forest Management agreement. The process helped PFN determine their priorities and what they were seeking out of the WFMA.

Specifically, PFN was looking to:

1. Create major economic and employment opportunities though resource based tribal enterprise, particularly for the growing population of youth living on-reserve.
2. Develop a land use strategy and undertake resource management, harmonizing Indigenous knowledge and practices of Beekahncheekahmeeng paymahteeseewahch with the best of western science. (Keeping the Land, 2006, pg. 5)

It is interesting to note that while OMNRF was not a part of the land use planning, PFN was obligated to create the plans using policies and process as outlined by the OMNRF. This means

members of the community needed to build their capacity in provincial land use planning policies, or retain a consultant and licensed planner, thus increasing the financial burden on a community with limited economic capacity.

In keeping with an Aboriginal holistic approach to land use, PFN are looking at three main components of land use planning and how they interact with each other. The three are:

1. Stewardship strategy
2. Customary activities
3. Economic development

PFN feel each of the components lock together to form a single usable plan that will help protect their traditional lands as well as their culture, while still offering economic incentives for their youth to stay in the region.

Despite the Whitefeather forest management area being 80% designated as a protected area, including pre-existing provincial parks, namely Woodland Caribou, the land use management plans represent a move towards a stewardship cooperative initiative, where Aboriginal traditions, economic prosperity and conservation initiatives are working together. Further, with the exception of the existing Woodland Caribou park, in the Keeping the Land strategy, there are no tracts of lands set aside or designated strictly for conservation efforts. In other words, the area is open for economic development, but it must be development in a sustainable manner that is first vetted through the cooperative management group, meets the criteria outlined in the land use plan, and is of direct benefit to the Aboriginal communities (Keeping the Land, 2006). The Whitefeather Forest Management area is very unique in this aspect.

However, in practice, while the OMNRF and PFN have been able to work together to regulate activities on 80% of the land, and keep large tracts of uninterrupted boreal forest as designated protected areas as described in the Provincial Parks and Conservation Reserve Act (2006), the agreement clearly favours the interests of the crown over those of the First Nations. Most obviously, the protected areas will utilize Ontario's protected areas management manual and guidelines instead of working with the PFN to integrate their traditional management activities.

For example, Pikangikum First Nations have used fire as a management tool for the Whitefeather area since long before European contact (Miller, et al. 2008). As demonstrated in this quote: "After the forest is burnt, new growth starts. Animals get tired of eating old food."

PFN have an understanding of what it takes to ensure the process for keeping a healthy ecosystem. Their knowledge of fire behavior has been developed through long history of utilizing fire as a tool to improve the abundance of resources and other more intrinsic landscape values. Incorporating PFN knowledge of fire management would help reduce wildfires and increase soil fertility. When OMNRF came into the region, they had a history of fire suppression, with the intention of increasing the forest lumber yields for industry (Johnston, 2013).

The LOA discussed how adaptive management principles will be incorporated, and that the process will be grounded in consensus-based dialogue, but does not stipulate the process will use consensus-based decision making. As pointed out earlier, the process is heavily biased toward the ONMR: with the use of their policies and planning manual, there is little room for the PFN to make meaningful contributions to the process.

As described in Ontario's Protected Areas Planning Manual, and Guidelines (OMNRF 2014), aboriginal involvement in the planning process is to be sought, but not required. The guidelines state "Aboriginal communities can be used to inform management decisions". It goes on to say that Aboriginal communities may or may not want to be a part of the process, and at a minimum the planner should try to initiate early involvement. No where in the document does the OMNRF describe how aboriginal involvement can be accomplished.

If the OMNRF wishes to have meaningful involvement of Aboriginal communities, there should be clear guidelines for the planners to incorporate ATEK into the process. The terms of reference and the draft management plans for the Whitefeather discuss that the customary stewardship approach is a guiding principle in the planning, decision-making and implementation of management direction for the Cheemuhnuhcheecheekuhtaykeehn.

This represents a new experience for both Ontario Parks and Pikangikum First Nation by entering into partnership arrangement to share planning and management responsibilities. However, neither the terms of reference nor the draft management plan lays any groundwork for tools to implement the use of ATEK in a practical manner. Previously we looked at Pikangikum First Nations familiarity with the use of fire as a tool for ecologic restoration, and this is cited in the management plan as well, but again, no discussion about how this knowledge can be put to use.

The management plan includes a section for the creation of a council of land users from Pikangikum and outlines the decision-making process as the council will come to the OMNRF

with its opinions and management directions; however, the OMNRF is not obligated to accept the direction of the council. In fact, in one instance the OMNRF made the decision to go with outside NGO influence in the division of lands for the protection of Caribou. Canadian Parks and Wilderness Society (CPAWS) views on how land use patterns affected the caribou differed from the Pikangikum First Nations. CPAWS wanted specific large tracts of lands set aside as caribou sanctuaries, where PKN, using ATEK as their guidance system, said the caribou would not respect the lines on the map, and there should not be specific areas of exclusion for any economic activity: as long as their traditional laws are followed, the caribou will thrive in the area. As one elder put it: "neither parks nor commercial forestry should impede the ability of woodland caribou to make their own choices about where to travel" (O'Flaherty, et al., 2008). The implication of the OMNRF listening to CPAWS over PKFN is that the trust between the two actors is not there, the relationship is in jeopardy. It is a sign to PKFN that the OMNRF does not value their ATEK and input.

4.3 Challenges and Opportunities

There are three main challenges for PPA planners and managers to incorporate ATEK. First, as a direct result of the colonial attitudes that created parks and protected areas, Aboriginal communities were removed from their lands, and the fundamental trust the treaties were to provide has been repeatably broken. The sheer number of Supreme Court of Canada cases where Aboriginal peoples are fighting for the protection of their constitutional rights is further evidence of this. Rebuilding the relationship is a fundamental element of reconciliation. Second, there is still a long way to go in the braiding of ATEK and WES. Many people still view ATEK as fanciful and the imposition of religion on Canadian citizens (Howard & Widdowson 1996). The third challenge is the collection and interpretation of ATEK. Given the variable nature of ATEK being regionally specific, adoption of the ATEK studies into parks and protected areas management is not always possible. However, there are common elements of ATEK across the country, from one Aboriginal community to another, those being, the holistic nature of the knowledge, the depth of data gathered for centuries, and the desire of Aboriginal communities to be more involved in the management of the lands they rely on.

Given the history of past poor relationship and prejudice, the lack of real devolving of decision-making power to indigenous groups, the challenges of mutually understanding and

integrating two very different kinds of knowledge should be no surprise. Illustrating the ongoing challenges, we note that in the Parks Canada agreement with the Dehcho First Nations a cooperative management board was established; however, the terms of reference for the working group gave clear preference to Parks Canada in stating that any conflicts would be resolved by the regional Director of Parks Canada, effectively reducing any real authority over management the First Nations might have had. Both the Dehcho and the Pikangikum cooperative management agreements have stated that traditional knowledge will be incorporated into the management plans, and a steering committee will be established to share management; however, neither of the documents outline or offer any guidelines of templates describing how ATEK can and should be incorporated.

The changing social and political environment offer policy makers the opportunity to revisit the relationships between Crown and Aboriginal peoples and create new policies to ensure the continued and meaningful inclusion of Aboriginal peoples in parks and protected areas management. The use of impact benefit agreements allows for both economic and capacity development in Aboriginal communities where new parks and protected areas are being created. The rise of Tribal parks as seen in British Columbia and Ontario provides models for these agreements.

There is a great opportunity for Federal and Provincial governments to make meaningful progress towards reconciliation in regards to PPA. Lands that have been taken from the Aboriginal communities can be restored to their traditional management practices and opened for traditional activities. Currently the Wikwemikong First Nations are working with Ontario Parks to create a new park utilizing their own reserve lands in Point Grondine. Situated between Killarney to the west and French River to the east, Point Grondine Reserve is ideally suited to become a corridor for back country tourism along the Georgian Bay coast. Wikwemikong Unceded Territory (WUT) has already opened a number of interior campsites and has held several public meetings to review and revise their Terms of Reference for the parks Management plans. In the next year, funding pending, WUT will release their draft management plans to their community members for review and allow for their feedback and input. What makes this park so remarkable, is WUT is putting traditional land use ahead of economic development, within the confines of the park boundaries. WUT is initiating a management system of community consensus, meaning each and every community member within the WUT will be given an

opportunity to comment, see their comments, and be heard by the park management committee. WUT is working with Ontario Parks planners and park superintendents. They have created a youth mentorship program where WUT youth work for Killarney Provincial Park gaining valuable training, certification and experience, they can take back to Point Grondine Park.

In a similar vein, in October of 2018, the Dehcho First Nations signed an agreement with the federal government, Ministry of Environment to officially protect the Edehzhie or Horned Plateau, area in the Dehcho traditional territory of the Northwest Territories, creating the first Aboriginal managed national wildlife area (Bird, 2018).

4.4 Lessons Learned

Both Parks Canada and Ontario parks have made headway in improving relationships and moving towards reconciliation with aboriginal groups they formerly dispossessed of traditional lands and resources. Over the last few years Ontario Parks has signed over 100 agreements in principle with Aboriginal communities across the Province (Ontario Parks, 2019); however, as this paper is being written, the new Conservative government in Ontario is backpedaling on all these agreements and has cut all funding transfers to aboriginal communities for natural resource management. Further, the provincial government is changing the parent ministry for Ontario Parks from the OMNRF to the Ministry of Environment and Climate Change. This move will leave the provincial parks open to radical changes, as the two ministries have different missions and legislation. The new Ontario Parks may be forced to revise their current policies to match those of their parent Ministry. In 2005 the OMNRF released the "Regulatory Role of the Ontario Ministry of Natural Resources and the Ministry's Relations with Aboriginal Peoples" (Ontario, 2005). This is a report mandated by the Ipperwash Inquiry, where the OMNRF was tasked with analysing its own policies and procedures in relation to Aboriginal relations, and ensuring they meet the standards suggested through the Ipperwash Inquiry.

As Dearden & Bennett put it, "Canada [and I would add Ontario] has chosen an "ad hoc" approach to accommodating Aboriginal interests and rights within the contexts of park management" (2016: pg. 369). There must be a uniform mechanism for all Parks Canada and Ontario Parks staff to follow to ensure continuity. While each individual park will be different, and each Aboriginal community will have its own ATEK specific to their traditional territory,

there are commonalities that can form the basis of a standardised parenthood approach to the inclusion of ATEK in PPA planning and management.

Communication is the key for success. Without a solid communication strategy there will be no progress. To build this both actors in PPA management need to educate themselves on the others' culture, policies, perspectives and ambitions. To foster communication, both Ontario Parks and Parks Canada need to implement a cultural awareness training program to help their staff understand the issues facing the communities they are hoping to work with. It would also be very wise to create mentorship programs for Aboriginal peoples interested in PPA to learn how the Crown agencies work. A pilot project between Killarney Provincial Park and Wikwemikong Unceded Territory (WUT) has been in operation for the last 3 years, with youth and community members from WUT working side by side with Killarney park staff.

Parks Canada and Ontario Parks employees at the parks office level may well have the best of intentions when it comes to the inclusion of ATEK and the Aboriginal communities in every aspect of parks and protected areas management; however, the obstacles come when we move to the policy levels.

In 2000 Roger Spielmann and Marina Unger released their paper "Towards a Model of Co-Management of Provincial Parks in Ontario" (Spielmann & Unger, 2000). In the conclusion they outlined six tenets that they see as imperative for cooperative management to be successful:

1. The importance of developing and monitoring joint stewardship programs
2. The OMNRF should work with First Nations communities to find how they wish to express their culture(s) in design and management
3. More policies that integrate First Nations' cultural needs and issues should be established
4. There should be ongoing research that pertains to First Nations cultures and cultural history relating to the natural environment
5. It is important to begin to building relationships and developing a formalized and long-term process of communications
6. Elders should play a significant role in decision-making regarding the planning, use, and design of provincial parks in traditional territories.

These 6 tenets still hold true today. In fact, I would say the single most important would be communications. But communication has many steps. I have already outlined the need for an education process for both Crown agents as well as the Aboriginal communities. Building a relationship is a slow process and must proceed with patience from all participants.

Both Parks Canada and Ontario Parks have made great headway in their dealings with Aboriginal peoples, however there is still room for improvement. Both agencies, in the case

studies of Nahanni and Whitefeather, have implemented “Consensus teams” made up of Crown agents and Aboriginal community members. But their methods are not consistent within their respective jurisdictions. What happens in one park is not what happens in another park. While parks themselves are vastly different from one region to another, the overall policies are the same. The basic elements for creating a park in the far north are standard with creating a park in the south. So, why then is it left to the individual park managers to create their own relationships with the Aboriginal communities as they see fit? Difficulty in creating a standard method for implementing ATEK is based on the reasons given in the summary of ATEK, those being, who is conducting the study, who owns the study data, and the interpretation of the ATEK. Using the consensus teams help break down the barriers between Crown and Aboriginal peoples. Developing an understanding of each others cultures and procedural policies can be accomplished through active participation. Speilmann & Unger discuss how in 1997 Ontario Parks staff had received training in Aboriginal cultural awareness, and then in 2008-15 OMNRF revisited the cultural education program (Speilmann & Unger, 2000). This sort of tool can make a great deal of difference in the effectiveness of building relationships between Crown agents and Aboriginal communities.

Langdon and Speilmann point out the goals of the Parks agencies align with the goals of Aboriginal peoples, that is, to protect preserve and continue to utilize the lands in traditional manners. Enns and Littlechild (2018) and Plotkin (2018) as well as Stronghill (2015) all advocate for the development of Tribal Parks as an alternative to the current Parks Canada and provincial parks models. But we would see the pendulum swing from one side to the other, where control is completely in one groups hands. Somewhere in the middle would be the path for Crown to work towards reconciliation, and for Aboriginal groups to find some measure of preservation of culture and lands.

Using ATEK as a basis for parks and protected areas management plans has its issues, but if all parties involved take the time to learn and understand each other, it could be the beginning of a new era of conservation initiatives in Canada.

5 CONCLUSIONS

This chapter will provide first a summary of the research, then some recommendations from the research, followed by suggestions for future research, and some concluding remarks.

5.1 SUMMARY

This major research paper looked at the inclusion of Aboriginal Traditional and Ecological Knowledge (ATEK) in parks and protected areas management. Using Nahanni National Park and Reserve in the Northwest Territories and the Whitefeather Protected Area in Ontario as case studies, the policies and process of both Parks Canada and Ontario Parks were analysed and evaluated based on their methods for inclusion of Aboriginal communities in their respective process. Issues of gathering and interpretation of ATEK, the history of Aboriginal peoples in parks and protected areas and the current relationships between Crown Agents and the Aboriginal communities have been discussed.

Background and support for the case study was established using a literature review of existing academic documents that look at Aboriginal cooperative management, Aboriginal participation in resource management, and studies on Aboriginal traditional and ecological knowledge. As well a brief analysis of Canadian Supreme Court rulings which established some basic and overarching fundamental issues for Crown agencies to be aware of, specifically Aboriginal rights, and the Crowns duty under the Canadian Constitution Act of 1982.

A systematic approach to analysing the parks and protected area policies and plans was followed, identifying key terms such as Aboriginal participation, cooperative management, and Aboriginal Traditional Knowledge.

Finally, lessons learned from the academic literature as well as the case studies' management plans and guiding policy documents were reviewed. The main points resulting from the study are the need for Crown agencies to work with Aboriginal communities to build trust and understanding of each other process and cultures. While on the surface this seems straightforward, there are many issues including current policies that restrict Crown Agencies abilities to ensure Aboriginal communities are engaged in a meaningful manner.

5.2 Recommendations

From the review of federal and provincial policies for parks and protected areas management, as well as the examination of the Nahanni and Whitefeather case studies, I would suggest there are four main areas where improvement in the inclusion of Aboriginal Traditional and Ecological Knowledge can be made: standard policies, communications, training (both park and policy agencies and Aboriginal communities), and the potential for using Impact Benefit Agreements (IBAs).

At the heart of the issues for the crown agencies is their current standard policy, or rather, lack of standard policy for inclusion of ATEK. While both Parks Canada and Ontario Parks have acknowledged the potential contributions of ATEK in the management of protected areas, they have left the decision on inclusion, and how ATEK may be collected, up to the individual area managers. In 1994 Parks Canada amended the Guiding Principles and Operational Policies (Parks Canada 1994) and recognised the potential contribution ATEK could make in the management of local area, but they do not make any comments or suggestions of how to gather or use ATEK. Likewise, Ontario Parks makes continuous reference to ATEK and local relationships in the 2014 edition of the Ontario's Protected Areas Planning Manual and Guidelines (Ontario 2014), but again, offers no policy on how the area managers and planners may go about the collection and use of ATEK. Neither agency have developed any guidelines outlining what steps may be taken to build the relationships with local Aboriginal communities to a point where the community many be willing to work with the Parks staff on the design of an ATEK study.

While no two Aboriginal communities will have the same ATEK, as it is locally specific, there is still the holistic aspect of ATEK that is shared in commonality with all Aboriginal communities. From this there is the potential to create policies that can help assist in the design and implementation of ATEK studies.

At the core would be developing positive relationships with local Aboriginal communities. While relationship development will vary from one location to another, based on the historic interaction the parks agencies and staff have had with the Aboriginal communities, there are some basic elements such as transparency which the crown agencies may be able to develop guidance documents to help staff. Communications start with knowledge of each other, and each other's operating policies.

Speilmann and Unger (2000) discussed how when the MNRF parks staff received Aboriginal cultural education, the staff felt like they had more tools to help develop the relationships needed to move parks into cooperative management. It was also discussed that due to budget constraints the Ontario government cut the Aboriginal cultural program in 1997 (Speilmann, Unger, 2000), resulting from the Ipperwash inquiry reintroduced in in 2008-15, reports, the program was brought back for a short time. As Ontario Parks changes its parent ministry to the Ontario Ministry of Environment and Climate Change, a large group of new staff will need this introduction to Aboriginal cultures. It would be very prudent of Ontario Parks, Parks Canada, and other Crown agencies, such as Ontario Ministry of Environment and Climate Change, to bring back, or adopt the Aboriginal Cultural Awareness program and make it mandatory for not only the park staff, but for all policy staff. In this it would also be of great benefit for the policy staff to attend community meetings with Aboriginal groups. Generally, policy staff do not get into the field, and are not as in tune with the effects of the policies they create. By having policy staff accompany parks staff in meeting Aboriginal communities, they will be given first hand awareness of their work. In addition, it is very important to have policy people in the meetings to help the Aboriginal community members understand the process the Crown must take to develop new policies. Shared, open and transparent communications will go a long way to develop relationships.

It is not to suggest that there is a single one-plan-fits-all approach for the inclusion of ATEK in parks and protected areas management, but rather a set of rules and policies that guide and provide consistency in the approach taken by Crown agencies when cooperating with Aboriginal peoples.

Canada's Aboriginal populations are growing, they are unique and divers, they have suffered through, and still feel the effects of colonialism. Aboriginal rights are protected in Canadian Constitution and Supreme Court of Canada rulings. Creating protected areas from the traditional lands ought not be considered without the direct and consistent impute from the Aboriginal communities who have used the lands since before colonization.

As pointed out previously, in Ontario Parks as with Parks Canada, building relationships comes down to the individual parks' managers (Dearden et al, 2016, Spielmann et al, 2000). In any given parks and protected area planning zone, there can be up to eight parks to a single planner (Spielmann et al, 2000) covering vast areas of isolated communities. The logistical

factors in bringing Aboriginal peoples to the Crown offices, or the Crown agents traveling to the communities is very limiting, both in time and financially.

While Impact Benefit Agreements are not tools to be recommended to resource consumers such as forestry and mining industries (creating a system or privatising Aboriginal rights), they do have a place in the creation and management of parks and protected areas with the Crown as the second signature in the IBA with the Aboriginal communities. Impact Benefit Agreements can be used in the land claim and parks planning process to help build capacity in the Aboriginal communities, protect traditional rights. When used by private companies, IBA's become subject to the financial situation of the company, if they go out of business the Aboriginal groups are left to bear the burden of any potential negative impacts. Also, IBA's can be seen as a corporation paying to extinguish Aboriginal rights on the lands and rights that are protected under the Canadian Constitution. Where as if the IBA is negotiated as part of the land claim or in fulfillment of the Crown's legal duty for consultation, the agreement is now protected by the federal government. While the Crown can move forward and acknowledge Aboriginal community rights, they must also be prepared to compensate, or work in an adaptive manner with Aboriginal communities, and ensure rights and traditions are not washed out with the entrenched dogmatic policies of slow-to-change colonialist government agencies. The financial burden of both parties can be lessened with the implementation of IBA's for parks management. For the parks agencies to employ community members as interpreters, guides and back country maintenance not only provides much needed opportunities for Aboriginal peoples, but offers a mechanism to pass on ATEK to more community members, and as a relationship building exercise, sharing knowledge of Crown parks management, and ATEK. The nature of ATEK gives the Aboriginal community members a better understanding of the lands they have used since long before European contact. Making use of this knowledge in back country ecological management will provide Aboriginal community members with economic development and the opportunity to pass on ATEK, preserving their culture.

5.3 Future Research

While there is a growing academic field looking at ATEK, there is not a lot of work being done on how to incorporate ATEK into management plans. Few scholars discuss how to braid ATEK with western science in a manner that can be easily reproduced. The discussion around

ATEK acknowledges each community has ATEK that is specific to their ecoregion, and for this reason there is a difficulty in working in the field. Despite the challenges, this is still an area needing much more, long-term, research in multiple places.

5.4 Concluding Remarks

For the provincial and federal governments to make a real change when dealing with Aboriginal communities in respect to park and protected areas management, there needs to be a fundamental shift in paradigm regarding the usefulness of Aboriginal Traditional Ecological Knowledge. Currently there are no mechanisms in place for non-Aboriginal peoples to learn how to interpret ATEK. It is left to experience and a willingness on the part of individual actors in each case. Between 2008-20013, the province of Ontario worked with Aboriginal communities to create staff training for Aboriginal awareness, but this was short lived and poorly managed.

In an age of growing practical distance between Aboriginal and non-aboriginal, when we should be working towards reconciliation and the implementation of the United Nations Declaration on the Rights of Indigenous Peoples, we seem to creating more walls and obstacles rather than removing them. It is unfortunate that at times it does come down to money, and all governments cut budgets. First to go are those programs that can actually make a difference for the Aboriginal communities. As we are seeing right now in Ontario, the government has cut over 50% of the funding for environment, natural resource management, conservation initiatives, and Aboriginal programs, while simultaneously dismantling environmental protection (Tanguay, et al. 2019).

What resource managers and ecologists now refer to as “adaptive management” can be viewed as a rediscovery of aboriginal systems of knowledge and management because of its integration of uncertainty, emphasis on practices that promote resilience, and study of feedbacks of resource and ecosystem change to indicate the direction in which management should move (Berkes, Colding and Folke 2000). It is perhaps here that the braiding of western science and ATEK can move forward. The acknowledgement by western sciences of the existence and validity of ATEK was the first step. Second will be for practitioners to work together finding a common language where the braiding can begin. Open dialogue between crown agencies and the aboriginal communities is key for a movement to happen. There ought to be clearly defined methodologies for both parties to follow in the creation of cooperative management plans. The ad hoc approach is not working. Nor is short-term and cyclical funding, which builds capacity

within Aboriginal communities, but then is cut losing capacity. Consistency is paramount for any true movement towards reconciliation and cooperative governance of any resources.

They key for Crown agencies to remember in working with Aboriginal communities, is to listen to understand, not to respond. When people start to understand others' position and point of view, true lasting relationships will be developed. The relationships will be built on mutual trust and understanding. It is very important for Crown agencies to take the first step and reintroduce cultural educations to their staff; however, that is not to say the Aboriginal communities do not have a large part in this as well. Communications and relationships are built by two parties, not one sided. For both parties in PPA, the actors need to learn to listen to understand, not listen to form questions.

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