The Land is Waiting:
Looking for Movements Toward Indigenous-led Conservation in Northern Alberta

by

Lindsay Vander Hoek

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Agriculture

Department of Resource Economics and Environmental Sociology
University of Alberta

Abstract:

This paper demonstrates the increasing recognition and need for Indigenous Protected and Conserved Areas (IPCAs) in Canada, for reasons related to biodiversity protection, reconciliation, and cultural connection. While awareness of this need is increasing at a national level, this paper questions whether themes found and suggested by the 2018 Indigenous Circle of Experts Report *We Rise Together* are present in Northern Alberta conserved and protected areas. A conceptual framework is developed using themes from the national Indigenous Circle of Experts Report and literature, highlighting the need for Indigenous leadership, and for Western-style protected area management to create the space for Indigenous leadership and Traditional Knowledge in the care of conserved and protected areas. The conceptual framework uses themes of Ethical Space and Paradigm Shift to analyze four representative case studies of conserved and protected areas in Northern Alberta, determining whether indicators of these themes are present. Findings demonstrate that there are movements toward creating Ethical Space within Western structures, indicated through acknowledging Treaty, nation to nation relationships, and the recognition and need for cultural competency training for non-Indigenous staff. Limited results are found regarding the theme Paradigm Shift, which looks for indications of whether the wilderness paradigm is present, for the inclusion of traditional human activity, and for equality of knowledge systems within management of conservation and protected areas. While indicators of Ethical Space and Paradigm Shift are found in Northern Alberta, this paper suggests further research to demonstrate whether the experience of First Nations and Métis people corroborate the findings of each case study.

Preface

This paper is an original work by Lindsay Vander Hoek. No part of this paper has previously been published.

Dedication

This paper is dedicated to the land with which I- and many other people- live, in hopes of a shifting paradigm away from management styles and attitudes which treat land as separate, and rather towards living relationship with all beings- including the land.

Personal Acknowledgement and Positionality:

I am a second-generation Dutch immigrant/settler (Vowel, 2016) living and interacting in Treaty 6 territory, near Amiskwaciwâskahikan (Edmonton). I recognize that I have grown up in a space that has me benefitting in many ways from settler colonialism which is the history of Canada. I am an outsider to the deep and sacred connection between Indigenous Peoples and the land on which specific communities reside (and have resided), which in essence is the reason for writing this paper. While not my tradition, I seek to demonstrate respect for Indigenous ways of knowing, and a desire for reconciliation on/with this land we call Alberta- reconciliation itself being a challenging term. In writing a paper touching on this sacred connection, I also note that there is great diversity among Indigenous communities (Bell, 2013 (Anishinaabe); Hunt, 2016 (Wapsewsipi Cree); Kimmerer, 2013b (Potowatomi Citizen)) and therefore each must be respected as unique. I also recognize the colonialism inherent in the very word "Indigenous" (Kwaymullina, 2018 (Palyku Aboriginal)) and mean to approach respectfully the living knowledge of "peoples who were the inhabitants of a territory when others came there; who were dispossessed; and who continue to maintain distinct cultures in homelands that are now occupied and controlled by others" (United Nations Permanent Forum on Indigenous Issues 2010 as cited in Kwaymullina, 2018).

This paper is no doubt through a Western lens. My interest in seeing and hoping for more protected areas led by Indigenous people and ways of knowing stems from spending hours walking trails Southwest of Edmonton and the desire to see and know- or at least be more aware of- the often invisible history and living knowledge and connection that First Nations and Métis communities have in relation with this land.

List of Abbreviations

BM	Bunchberry Meadows, conserved and protected area southwest of Edmonton
COE	City of Edmonton
DTFN	Dene Tha' First Nation
EALT	Edmonton and Area Land Trust
GOA	Government of Alberta
IPCA	Indigenous Protected and Conserved Area
ICE	Indigenous Circle of Experts, referencing a report also called "We Rise Together: Achieving Pathway to Canada Target 1 through the creation of Indigenous Protected and Conserved Areas in the spirit and practice of reconciliation"
LUF	Land-use Framework (Alberta)
MCFN	Mikiskew Cree First Nation
NCC	Nature Conservancy of Canada

Table of Contents

List of Tables

Introduction

The government of Canada is in a time of recognition and increasing action towards collaborative and co-operative land-management with Indigenous communities, for purposes of conservation, reconciliation, and upholding of Indigenous rights (Finegan, 2018). The Minister's 2020 Round Table Report from Parks Canada emphasizes the importance of parks on all scales to all Canadians, naming how the "goal of embracing Indigenous leadership in conservation can help Canada meet its goals while advancing reconciliation" (Parks Canada Agency, 2021). The Indigenous Circle of Experts *We Rise Together* Report (Parks Canada, 2018), created and completed by 20 Indigenous and non-Indigenous Canadian experts provides advice to the federal government as a response to Canada's "Target 1" (Government of Canada, 2021). Canada's Target 1 calls for more conserved and protected areas in Canada and is a response to the 2010 Convention on Biological Diversity (UN Environment Programme, 2012) Aichi Biodiversity targets (Conservation Canada, 2018). Target 1 includes recognition that Indigenous-led conservation efforts in Canada in the form of Indigenous Protected and Conserved Areas (IPCAs) are essential to meet these goals.

Indigenous Protected and Conserved Area (IPCA) is the term chosen by the ICE Report to describe "lands and waters where Indigenous governments have the primary role in protecting and conserving ecosystems through Indigenous laws, governance and knowledge systems. Culture and language are the heart and soul of an IPCA" (Parks Canada, 2018, p. 5). Currently there are 62 collaborative projects between Indigenous governments and the government of Canada working towards biodiversity targets (Government of Canada, 2021), in addition to 27 Indigenous-initiated conservation projects, with more in the process of receiving funding (Government of Canada, 2020a). Australia, where there are increasing Indigenous Protected

Areas and initiatives, conveys that IPAs "promote a balance between conservation and other sustainable uses to deliver social, cultural and economic benefits for local Indigenous communities" (Government of Australia, n.d.), where partnerships between traditional and contemporary knowledge create a holistic conservation paradigm.

The vision coming out of the Indigenous Circle of Experts *We Rise Together* Report (referred to as the ICE Report for the remainder of this paper, which will not continue to be cited because of multiple references) is for "Canada's entire system of protected and conserved areas to be identified and managed in partnership with Indigenous governments" (Parks Canada, 2018, p. 5). It is a time of "shifting paradigms" (Parks Canada, 2018, p. III), perhaps marked by the Durban Accord which identified a new protected areas paradigm as part of the International Union for Conservation (IUCN), which essentially is a move towards decolonizing conservation (Zurba et al., 2019). There is recognition globally that conservation is impossible without Indigenous leadership and support, and the importance of consent regarding land-use decisions is becoming more clear (Artelle et al., 2019; Zurba et al., 2019). Countries like Canada with a history of colonialism and dispossessing Indigenous peoples of their lands have a long journey ahead in redefining protected areas and conservation as this paradigm shift occurs on many levels.

IPCAs can take many forms, and their elevation of Indigenous rights, responsibilities and voices in decision making, particularly around land-use and conservation efforts is important on many levels- not only for "cultural continuity on the land and waters" (Parks Canada, 2018, p. 5), but for increasing conservation and protecting biodiversity in Canada.

This paper asks the question of whether and how the themes found in the ICE Report and reviewed literature are present within Northern Alberta, Treaty 6 and 8 territory. Two of the

national parks with violent colonial history reside within Alberta (Binnema & Niemi, 2006; Youdelis, 2016), and large areas of parkland and boreal traditional lands are consistently under pressure from industry and development. While IPCAs generally occur at national and watershed scales, and the designation is fairly new; the ICE Report and others state that the themes are important in all levels of caring for the land. Limited resources exist encouraging and guiding towards Indigenous initiated, led, or partnered conservation projects at provincial, municipal and NGO levels- levels through which significant portions of land are managed in Alberta, and which are traditional territories of First Nation and Métis communities.

In order to approach the question presented, this paper develops a conceptual framework through which it descriptively and thematically analyzes cases of conserved and protected area management in Northern Alberta. This will be completed as follows: a literature review summarizing efforts partnering "Western-style protected area management" (Finegan, 2018, p. 9) with Indigenous leadership and traditional knowledge within Canada will be offered, followed by identifying themes within the ICE Report and other literature focused on Indigenous-led conservation. The methods section will offer the conceptual framework along with identifying four case studies at four different levels: provincial, Indigenous-led, municipal, and NGO. Each case will be presented in a results section, followed by a discussion. This representative scan of Northern Alberta will provide a sampling of conserved and protected area work being done; where themes suggested by the ICE Report may or may not be present.

The importance of Indigenous-led conservation work is becoming increasingly clear nationally. Looking for and identifying where Indigenous leadership or- space created for Indigenous leadership- is present at levels beyond national initiatives is an important step. Naming where themes may or may not be present will create groundwork for future work in

Alberta. As the concluding remarks of the ICE Report state, “The beneficiaries of this work are our future generations, all living beings on Mother Earth, and the spirit of place found in every protected and conserved area” (Parks Canada, 2018, p. 70).

Context

In order to frame the development of the ICE Report this section is offered to provide a brief summary of the colonial nature of Canada’s conservation and parks management system, as well as the paradigm which has strongly influenced it. This section will conclude with a note regarding reconciliation before moving into the literature review portion of the paper.

Brief history of Canadian Conservation and Protected Areas Management

Canada has a history and current reality of colonialism, particularly related to the development of conservation areas. There are countless examples and recognition of how the development of parks and protected areas were “overt tools of settler colonialism” (Finegan, 2018, p. 7) against Indigenous peoples, and how these models continue to create inequalities today. When Canada’s first parks were created, Indigenous peoples were excluded and often violently dispossessed of the lands they were a part of and living in relationship with (Moore, 2020; Youdelis et al., 2020). Binnema and Yiemi (2006) quote one of the first managers of Banff National Park saying in 1887 that “the Indians should be excluded from the Park. Their destruction of the game and depredations among the ornamental trees make their too frequent visits to the Park a matter of great concern” (p. 729). This language and attitude demonstrate the Western paradigm that was being imposed on people who had lived in relationship with the land now known as Banff National Park for millennia. Hunting, trapping and other livelihood measures were disallowed by laws, policies and enforcement by the North West Mounted Police, despite treaties that agreed upon the ability of Indigenous peoples such as the Stoney, Niitsítapi

(Blackfoot), and Tsuu T'ina to continue their way of life. Similar stories exist across what is now known as Canada, demonstrating systematic exclusion of Indigenous peoples from land (Artelle et al., 2019; Dickason & Long, 2016; Finegan, 2018; OECD, 2020; Parks Canada Agency, 2017b; Youdelis, 2016; Zurba et al., 2019).

It is clear that in Canada, land and relationship with land is a primary source of conflict on the route towards reconciliation between the Crown, non-Indigenous, and Indigenous peoples (Dickason & Long, 2016; King, 2006; Lewis, 2016; OECD, 2020; Truth and Reconciliation Commission of Canada, 2015). The fact that Indigenous cultures are linked inextricably with land (Dickason & Long, 2016; Gibson MacDonald, 2019; Kimmerer, 2013a; Simpson, 2002; Thomlinson & Crouch, 2012; Vannini & Vannini, 2019b; Watts, 2013) means that relationship building with Indigenous peoples on the route towards reconciliation, means something other than cultivating a colonial or Western siloed approach to land management (Zurba et al., 2019).

Wilderness Ethic

Western civilization has often perpetuated the idea of humans being separate from nature, or what is called "the environment." There is a history to this throughout Western society (Dunlap & Catton, 1994; McLaughlin, 2012). Cronon (1996) named it "the Trouble with Wilderness," and pointed out the challenges that are presented when the modern environmental movement pushes for a non-existent ideal of pristine human-free wilderness (p.1). The movement, which has elevated a nature or environment devoid of humans, stemming from concepts such as *terra nullius* (Youdelis, 2016) in land management practices, has created problems not only for Indigenous people who have lived in relationship with land (which includes water, and all beings a part of the land and water), but for the environmental movement as a whole (Artelle et al., 2019; Finegan, 2018; Youdelis et al., 2020). Anderson and Flynn

(2020) point out that this "myopic" view actually elevates human beings and negates care of more-than-human beings[1] which becomes antithetical to the very pursuit of the environmental movement.

Indigenous knowledge of lands and Indigenous-led approaches to conservation have generally been devalued and not considered legitimate within "Western-style protected area management" (Finegan, 2018, p. 9). It is also becoming clear that areas where Indigenous peoples have been living holistically with the land generally have higher biodiversity levels (Anderson & Barbour, 2003; Kimmerer, 2013b). This includes a recognition that human well-being is intertwined with the well-being of environments (Artelle et al., 2019; Berkes et al., 2003; Gibson MacDonald, 2019).

Moving towards a paradigm which holds human beings as an essential part of nature and away from any dualistic vision elevating either humans or pristine human-free wilderness is a journey Canada and protected areas managers are undertaking. Youdelis et al. (2020) note that this is a slow move towards changing paradigms in Canada, where the "wilderness ethic" (p. 247) continues to influence how conserved and protected areas are managed. Yet there are signs such as the ICE Report which demonstrate movement in recognizing the essential place Indigenous peoples hold and have held in co-producing the "wilderness" seen by the early colonizers.

As this paper progresses, this awareness of the "wilderness ethic" undergirding much of the modern environmental movement (Bacon, 2019; Cronon, 1996; Youdelis et al., 2020), and

[1] Robin Wall Kimmerer (2013b) suggests the term "more-than-human" instead of "non-human," creating a further sense of kinship with other species besides humans. Further discussions regarding kinship with all life forms can be found in Simpson, 2002; Todd, 2017; Watts, 2013.

therefore Western-style conserved and protected area practices, will provide insight into the importance of a paradigm shift on multiple levels.

A note on the word Reconciliation

The focus of this paper is around themes of conserved and protected land, and how parks and protected areas can become tools towards reconciliation between the Crown, non-Indigenous people and Indigenous peoples. When the word reconciliation is used, it is with recognition of the inherent challenges with the concept and word, particularly when coming from a colonial structure (Youdelis, 2016). "Reconciliation" can communicate the idea that things can go back to the way they were, which is essentially not possible, and therefore some would prefer the word "Conciliation" or a focus on the concept of "Reciprocity" (Indigenous Ally Talk, Jessica Vandenbergh, attended June 13, 2021). There are many contextual definitions of reconciliation including from the TRC (Truth and Reconciliation Commission of Canada, 2015). For the purpose of this paper, I would like to quote Finegan (2018, p. 20):

> Reconciliation is, I believe, at its core a humbling act. The protected area profession must accept responsibility for past harms. Reconciliation asks settler colonists to turn a critical eye on themselves and their institutions, reflecting on how they treat and have treated those who have been their friends, neighbors, and hosts for centuries. It calls settlers to relinquish their privilege and focus on advancing Indigenous sovereignty, rather than continuing to blithely assert settler-colonial control over land and natural resource management.

This understanding of reconciliation frames the question addressed in this paper, particularly as a paper written by a non-Indigenous person.

Literature Review

This literature review seeks to frame and name the movements that have led to a call for more Indigenous Protected and Conserved Areas (IPCAs) in Canada. The first section will offer an overview of conserved and protected area models in Canada which are moving towards Indigenous leadership such as co-management and Guardian programs. The second section will provide an overview of the ICE Report and principles it recommends in moving towards increasing IPCAs in Canada including at provincial, municipal and NGO levels in Canada.

On an international scale there is increasing recognition of the need for a different conservation paradigm, one which recognizes the holistic way in which Indigenous peoples have connected and cared for landscapes for millennia. Indeed, a shift in paradigm is occurring on many different levels employing many different models, with increasing movement in the last two decades (Borrini-Feyerabend et al., 2014; Dearden et al., 2016; Dickason & Long, 2016; Zurba et al., 2019). This is a journey that many countries with colonial histories and current realities are working through in order to achieve greater conservation of biodiversity in the face of environmental crises, and also create a space for relationship building where reconciliation is needed (Finegan, 2018).

Movements toward Shifting Paradigms

As mentioned above, the last two decades have seen increasing movements towards land management models seeking to move towards recognizing Indigenous rights and knowledge particularly around land-use decisions. At the federal government level in Canada, this recognition is perhaps most succinctly demonstrated in the ICE Report which will be referenced further below.

Western-style management efforts to include or elevate Indigenous involvement and/or knowledge over the years have not produced a perfect model in Canada for conserved and protected areas (Finegan, 2018); yet seeking more participatory methods have been ongoing since the 1980s (Murray & King, 2012).

Various models exist seeking participation and engagement with Indigenous peoples in parks management, such as advisory boards, co- or joint-management, co-operative management, tribal parks, and conservancies- all which retain some form of federal or provincial authority (Government of Canada, 2016). Models of land management often mean different things in different contexts (Borrini-Feyerabend et al., 2014; Hawkes, 1996; Murray & King, 2012; Youdelis et al., 2020). Co-management and co-operative management are referenced as the same concept by Dearden et al. (2016) as the sharing of power and decision making "between Aboriginal groups and government agencies" (p. 169). Generally there is agreement that in order to elevate Indigenous knowledge and sovereignty in land-use decisions, co-management in some form needs to occur (Moore, 2020). However, critiques exist regarding many models which retain ultimate federal or provincial authority saying they do not go far enough in elevating and recognizing Indigenous knowledge and rights (Anderson & Flynn, 2020; Finegan, 2018; Youdelis et al., 2020), as Indigenous peoples have often experienced exclusion from decision making (Dickason & Long, 2016). Advisory boards and consultation models can also negate Indigenous peoples by absorbing and replicating Indigenous knowledge without properly engaging the people themselves, which can continue the colonialist approach (Finegan, 2018; Reed et al., 2021; Youdelis et al., 2020).

Tribal Parks and Indigenous management or governance initiatives demonstrate conserved and protected area management models elevating Indigenous leadership and

knowledge. As Zurba et al. (2019) relate, Tribal Parks are not formally recognized by the federal or provincial governments as protected areas, and therefore would not contribute to Canada's biodiversity targets- however it would be possible if new agreements were made between nations using the accepted IUCN's definition of protected areas. Indigenous management and governance models also have possibilities for being solely under Indigenous leadership while contributing to Canada's conservation and biodiversity targets, however there are few of these protected areas in place and are contextually based- it is the hope that more will develop (Parks Canada, 2018; Zurba et al., 2019).

Gwaii Haanas National Park Reserve: Co-management and Guardian Program example

One example of the work that has been done towards effective co-management is Gwaii Haanas National Park Reserve (NPR). Thomlinson & Crouch (2012) reference this as an example of effective co-management since there has been a relationship from the beginning of the park's creation between Council of Haida Nation (CHN) and the Government of Canada. This transparent and open partnership has allowed for mutual understanding recognizing the value of different perspectives and knowledge. Another aspect contributing to the effective management partnership of Gwaii Haanas NPR was the initiative taken by CHN to create the park in the first place, forming a foundation open towards Indigenous sovereignty and therefore an equal partnership in managing the park (Dearden et al., 2016; Hawkes, 1996; Thomlinson & Crouch, 2012).

Gwaii Haanas NPR also provides an early example of what has since become referred to as Guardian programs, through which Indigenous knowledge is elevated and used to "safeguard the natural and cultural elements of the area" (Thomlinson & Crouch, 2012, p. 81). Guardian programs offer a framework honouring Indigenous rights and responsibilities including space for

Indigenous peoples to influence land-use decisions, while also delivering social and environmental benefits. Currently over 70 programs exist in Canada, each with differing goals and contexts (Gibson MacDonald, 2019; Indigenous Leadership Initiative, n.d.). The Canadian Government recently allotted funding for a Guardians Pilot (Government of Canada, 2020) as one way to increase Indigenous involvement towards goals of biodiversity protection, encouraged by the findings of similar Ranger programs in Australia (Indigenous Leadership Initiative, n.d.). This funding is met with caution from Reed et al. (2021) where it is suggested that there may not be enough funding to carry projects out well, which may again further colonial approaches. When carried out intentionally, Guardian programs offer an Indigenous developed model of protected area conservation while taking human well-being into account. Thomlinson and Crouch (2012) note that an essential piece for success of a Guardian program is that it has been initiated by an Indigenous community, and allows for Indigenous knowledge to be elevated.

The Watchmen (Guardian) program in Gwaii Haanas has been in operation much longer than the formalized NPR recognition, and its existence has allowed Indigenous knowledge (often referred to as Traditional Ecological Knowledge) to be treated as equal to the Western-style conservation monitoring and reporting methods used in federal parks management (Dearden et al., 2016; Indigenous Leadership Initiative, n.d.; Thomlinson & Crouch, 2012).

Gwaii Haanas NPR offers a hopeful model towards effective co-management, demonstrating that regardless of the name of the management model, what is highlighted for effective partnership is space for relationship building, different knowledge systems, and Indigenous initiated projects. However, the push demonstrated below from the ICE Report is for models that further elevate Indigenous leadership and decision making.

We Rise Together, Indigenous Circle of Experts Report

As referenced above, the ICE Report is perhaps the most succinct demonstration of the Canadian federal government's intentions towards shifting conserved and protected areas management models. While originally driven by Canada's commitments to achieving the Convention on Biological Diversity (CBD) goals around biodiversity and conservation, the ICE Report offers insightful principles and language in the spirit of reconciliation around land conservation.

Developed over five months through a series of Regional Gatherings and online meetings between Indigenous and non-Indigenous Canadian citizens, the report submitted to the federal government is a result of numerous voices and stories coming together in conversation around three questions. Namely, what it could look like for the diversity of Indigenous voices in Canada to be held alongside current conservation practitioners, what role would they play, and "what does reconciliation look like in the context of conservation and protection in Canada today" (Parks Canada, 2018, p. III).

IPCAs (or IPAs) are increasing internationally, and are inherently diverse. There is no one size fits all model, as each are contextual (Barry and Porter, 2016; Zurba et al. 2019; Artelle et al. 2019). In Canada, the IPCA model generally encourages conservation at the watershed level and at the very least includes a joint model of Indigenous knowledge and Western science in ecosystem monitoring (Parks Canada, 2018, p. 57). The ICE Report references case studies as examples of emerging IPCAs such as Thaidene Nëné National Park Reserve and Territorial Protected Area (Northwest Territories), Tla-o-qui-aht Tribal Parks (Vancouver Island), and Wehexlaxodıale—An Indigenous-Governed Land Use Exclusion Area (Northwest Territories). Three main themes highlighted through the report emphasize that IPCAs must be Indigenous-led,

they must represent “long-term commitment to conservation,” and they must “elevate Indigenous rights and responsibilities” (Parks Canada, 2018, p. 104). It is suggested that when these themes are at play, other beneficial results will occur such as the revitalization of Indigenous languages, increasing food security and cultural practices, and holistic approaches to governance and planning (Gibson MacDonald, 2019; Parks Canada, 2018)

While not without conflict and challenges- primarily related to natural resource extraction- the majority of IPCAs are in northern parts of Canada (Zurba et al. 2019), perhaps because there are higher populations of Indigenous peoples in these areas (OECD, 2020). The vision held by the ICE Report encourages all protected and conservation areas in Canada to have partnership with Indigenous governments. The report communicates this through calls on federal and provincial governments, and NGOs involved in land protection to be aware of essential steps towards partnering with Indigenous governments in goals both towards biodiversity protection and reconciliation.

Provincial, Municipal and NGO levels within Indigenous Circle of Experts Report

While federally initiated and focused, the ICE Report communicates a vision where all conserved and protected areas in Canada will be in partnership with Indigenous governments. This section will briefly touch on the application of the ICE Report to provincial, municipal and NGO levels.

The ICE Report makes a call to all provincial and territorial governments to seek collaboration with Indigenous governments regarding land-use planning on all levels, which could include implementation of land claim agreements and the “creation of shared decision-making models” (Parks Canada, 2018, p. 62). It is recognized that a shift in management paradigms must occur on all levels including NGOs, municipalities and industry in order IPCA

models to grow. This includes actions such as intercultural staff training programs and policy review among many more examples which cannot all be reviewed in this paper.

The ICE Report recognizes that not all conserved and protected areas will come under Indigenous nation leadership, and therefore emphasizes the contextual nature of many of the principles. While Indigenous leadership is imperative for IPCA models of conservation, there will be other models that continue to have Western approaches; and it is in these situations that the ICE Report calls for movements towards relationship building and shared decision making. In order to begin these shifts it is emphasized that UNDRIP and Treaty rights be recognized, past wrongs acknowledged, and space created for the recognition of more than one knowledge system.

Challenges exist both at provincial and municipal levels in creating and allowing space for Indigenous leadership of conserved and protected areas, where the Crown relationship is less clear (OECD, 2020). There are slow changes in terms of policies and legal systems, where the language of the courts remains to "consult and accommodate" (Anderson & Flynn, 2020; Murray & King, 2012; Youdelis, 2016). The legal and constitutional duty to consult which is integrated into federal and provincial policies can be helpful, but as Anderson and Flynn (2020) also relate, it often does not go far enough towards true relationship building and can even further the "colonial project" (Youdelis, 2016, p.1377).

At the provincial level, there are many different models of conserved and protected areas. Generally the areas are focused on conservation without human involvement, and designated recreation areas (Dearden et al., 2016) have limited allowance for activities such as hunting, trapping, fishing or other harvesting activities. Finegan (2018) notes that provincial parks are

generally governed by public agencies which often makes efforts towards reconciliation or movements towards Indigenous leadership elusive because of "competing interests" (p.17).

In Canadian municipalities where the duty to consult may not written into policies, the approaches become more confusing and varied (Anderson & Flynn, 2020; Fraser, 2018). The history is similar to national parks where Indigenous people have often been excluded from any planning processes (Anderson & Flynn, 2020; Porter & Barry, 2016). The last decades have also seen an increase of Indigenous populations in urban centers (OECD, 2020) making the need for healthy co-existence and conservation areas more pressing, given the added effects of climate change (Anderson & Flynn, 2020; Parks Canada Agency, 2017a). While municipalities are not a focus of the ICE Report, there is ample opportunity for Canadian municipalities to pay heed to the call to create space for the recognition of UNDRIP, Treaty rights, and other knowledge systems on the road towards elevating Indigenous voices in land-use decision making and management (Anderson & Flynn, 2020; OECD, 2020; Parks Canada Agency, 2021; Porter & Barry, 2016).

At the NGO level there is varied capacity for developing or changing existing frameworks around conserved and protected area management. When an organization is not state driven, it can play a unique role towards reconciliation (Zurba et al., 2019). The ICE Report specifically encourages environmental NGOs to encourage Indigenous conservation efforts, which includes supporting capacity building of Indigenous governments and communities (Parks Canada, 2018, p. 61).

Themes Identified in We Rise Together, Indigenous Circle of Experts Report

The scope of this paper is not large enough to expand on all of the aspects of the ICE Report, therefore themes have been identified which are emphasized strongly throughout the

report, and in other literature reviewed. These themes will comprise the latter part of the literature review section

Ethical Space

UNDRIP and Treaty Acknowledgement

The creation of Ethical Space at the organizational level (whether federal, provincial or NGO) is discussed in the ICE Report as essential towards recognizing and encouraging Indigenous rights and sovereignty in land-use decision making. In their discussion of municipal planning, Porter and Barry (2016) name this concept "ontological plurality" (p. 179) as a space away from dominant Eurocentric tools and knowledge systems. Further discussion of Ethical Space and the importance of holding different knowledge systems as valid and equal beside each other is offered by contributors to the ICE Report (Conservation Through Reconciliation Partnership, 2020) and further insights are offered by Willie Ermine (2007) about the nature of cultivating a cooperative spirit. In this context, Ethical Space begins with the recognition of UNDRIP, which the TRC (2015) required and Canada has committed to implementing as a framework towards reconciliation. Gibson MacDonald (2019) points out essential elements of UNDRIP in this context where "Indigenous peoples have the right to self determination, self governance, and free, prior, and informed consent (FPIC) of their lands, including in efforts to protect their culture and traditional resources" (p.8). A beginning towards partnerships or solely Indigenous-led conservation efforts is the recognition by all actors (federal/provincial/Indigenous governments and NGOs) of UNDRIP, Treaty rights (as stated in the 1982 Constitution section 35) and any other agreements, as well as acknowledging past wrongs (OECD, 2020; Parks Canada, 2018; Plotkin & Firelight Group, 2018; Porter & Barry, 2016).

Nation to Nation

Another step towards Ethical Space where land-use decision making can occur equally between Indigenous communities and Western-style protected area management is the encouragement of nation to nation or government to government agreements (Parks Canada, 2018; Zurba et al., 2019). This allows for recognition of the uniqueness of each situation, which a federal legal policy or framework might negate (Parks Canada, 2018). This means encouraging actors to create agreements at the nation or government level (for example, with a specific First Nation as in the creation Gwaii Haanas NPR). This "situated engagement" (Porter & Barry, 2016, p.179) can create space for relationship building which is named as essential towards any IPCA arrangement (Anderson & Flynn, 2020; Finegan, 2018; Gibson & Gould, 2020; Murray & King, 2012; Vannini & Vannini, 2019b).

Cultural Competency Awareness

Ethical Space can be cultivated with cultural competency training for Western-style management staff, and also the public. This training can include developing an awareness of inherent colonialism, demonstrating Indigenous ways of knowing, and fostering language development; which creates a space for truth-telling and fostering relationships in any conserved or protected area (Finegan, 2018; Parks Canada, 2018; Zurba et al., 2019).

The move towards Ethical Space creates a respectful environment where Western-style protected area management can take the initiative to ask how they can "support implementing the recommendations in the ICE report" (Youdelis et al., 2020, p.247). While recognition of rights can become token, legalities such as using UNDRIP as a framework can also be the beginning towards something greater (Anderson & Flynn, 2020), particularly leading to "increased engagement with Indigenous stakeholders" (Porter & Barry, 2016, p.4 referencing Berkes et al.

2002). As Ermine (2007) puts it, recognition of rights gives space to demonstrate that "Indigenous peoples are not the enemies of Canadian civilization, but are, and always have been, essential to its very possibility" (p. 201). The ICE Report emphasizes the importance of Ethical Space, and demonstrates that the recognition of UNDRIP, treaty acknowledgement, nation to nation agreements and the building of cultural competency can all be a part of creating Ethical Space.

Paradigm Shift

Wilderness Paradigm, Land-based Activity and Policy Review

In the context section of this paper, the Western wilderness paradigm or ethic was referenced as often having a siloed approach to conservation work. This can be indicated through language which highlights how humans are separate from nature. In contrast, Indigenous ways of relating to the land are holistic and therefore require ongoing relationship with the land. This includes cultural activities such as ceremony and harvesting (Gibson MacDonald, 2019; Parks Canada, 2018). In an ideal IPCA context, there is space for people to reconnect with land and participate in cultural activities. In situations where conservation and park areas already exist, this may look like reviewing and changing policies to allow for "opportunities to reconnect to the land" (Parks Canada, 2018, p. 60).

Knowledge Systems Equal

The ICE Report emphasizes that IPCAs cultivate respect for Indigenous knowledge systems. This is also one of the IUCN principles in the shift towards the new protected areas paradigm which calls for the inclusion of Traditional Ecological Knowledge (TEK)[2] in the

[2] Kimmerer, 2013b discusses the limits of the term TEK in environmental monitoring- a term that she deems unable to grasp the holistic nature of Indigenous ways of knowing and being. However, she notes it is the only currently recognized term and uses it while waiting for an Indigenous created term to describe Indigenous knowledge systems.

creation and management of conserved and protected areas (Thomlinson & Crouch, 2012). This can mean that even policies and methods of monitoring need to change in existing parks as Indigenous knowledge-based approaches will look different (Zurba et al., 2019).

While recognizing their diversity, an ideal IPCA would then cultivate respect for Indigenous knowledge systems, and because of federal biodiversity reporting requirements, this may look like a "two eyed seeing approach" (Parks Canada, 2018, p. 57; Zurba et al., 2019, p. 13) between Western and Indigenous knowledge and tools. Systems would be in place to allow for sharing and building collective knowledge, and transparency would exist across all reporting levels.

A shift from Western-style conservation (where humans are treated as separate from nature) towards a paradigm led by Indigenous ways of knowing and being will usher in a new protected areas paradigm (Zurba et al., 2019). This includes how wilderness and conservation areas are treated.

This literature review has briefly described different conservation partnership approaches in Canada, and has highlighted themes in the ICE Report and literature. The general themes of Ethical Space and Paradigm Shift found throughout this literature review demonstrate indicators where Indigenous leadership would be welcome and recognized. It is clear throughout the literature reviewed that in order for true reconciliation to occur in relation to conserved and protected area management, space must be created for the acknowledgement of past wrongs and for knowledge systems other than the dominant Western-style approach to be equally engaged.

Methods

In order to determine whether themes identified in the ICE Report and literature reviewed are present at provincial, municipal and NGO levels in Northern Alberta, a mixed approach was taken. First, a conceptual framework (Miles et al., 2020) was developed based on identified themes presented in the ICE Report and literature reviewed. Secondly, four conserved and protected areas were identified in Northern Alberta at the provincial, municipal and NGO levels to be used as representative case studies. One case study identified is a proposed Indigenous-led IPCA, therefore two case studies are presented at the provincial level. Using the framework as a lens, a secondary data content analyses was then completed using publicly available information such as websites, annual reports and documents pertaining to each case study.

Given the diverse nature of emerging IPCA models and the goal of applying the identified themes to provincial, municipal and NGO cases (which may or may not be seeking IPCA status) the following was taken into consideration in developing the framework and case study presentation model:

- The need for flexibility while allowing for a directed thematic analysis (Hsieh & Shannon, 2005; Lawrence et al., 2013)
- The need to be aware of the context of documents analyzed (Bowen, 2009)
- Allowing for cases to be presented descriptively rather than evaluatively or normatively (Lawrence et al., 2013)

The case studies are therefore presented in a summary form, allowing for descriptive analysis of each while following the developed framework. There is space for each case study to be unique while holding to the thematic guidance of the framework.

Framework development

The previous literature review sought to define IPCAs and to highlight movements in Canada towards elevating Indigenous voices and decision making in conserved and protected area management. The last section of the literature review identified two major themes discussed in the ICE Report and other literature. Each theme identified was presented along with what could be considered indicators of the related theme. Because each case study is uniquely situated, the themes chosen were intended to be broadly applicable, essentially a base level for any conserved and protected area. These themes, according to the ICE Report and other literature reviewed, appear to be foundational in working towards goals of biodiversity protection and relationship building between Indigenous and non-Indigenous conserved and protected area managers or advocates, and governments. Consequently, whether the case being approached is a watershed level IPCA initiated and led by a First Nation or Métis community, or a municipal project in the city of Edmonton, any identification of the themes would indicate the presence or shift towards Indigenous nations or governments holding leadership roles of conserved and protected area management, acknowledgement of past wrongs, and whether different knowledge systems are held as equal.

Table 1 gives an explanation of the developed conceptual framework with the two main themes of Ethical Space and Paradigm Shift followed by respective possible indicators.

Table 1. Conceptual Framework

Ethical Space		*Questions to Consider in Search*
Indicators	Treaty/UNDRIP recognized	Treaty, UNDRIP, or past wrongs acknowledged
	Nation to Nation relationship	Nation to nation or government to government partnerships or relationships developed or being developed
	Cultural Competency	Organizational Indigenous awareness training or other cross cultural education initiatives demonstrated
Paradigm Shift		
Indicators	Wilderness Ethic	Language demonstrating humans are separate from nature
	Human Activity	Demonstrate allowance for human activity in conserved and protected areas such as medicinal plant gathering, hunting, trapping, fishing and ceremonial use. Activity beyond light recreational use such as leave no trace walking
	Knowledge Systems	Recognition of more than one knowledge systems for environmental monitoring

Identifying Case Studies

The case studies chosen represent different contexts of conserved and protected areas in Northern Alberta, and is not comprehensive. Stemming out of my own situated place in the province of Alberta and curiosity around themes presented in the ICE Report, the search for case studies was spurred through a series of conversations beginning with contacts at Edmonton Area Land Trust (EALT), the City of Edmonton, and professors who pointed towards possibilities. This snowball method of finding case studies and further organizational contacts worked well, as there were low internet and academic search results for Indigenous-led conservation in Alberta (please see Appendix A for a description of the search terms used in initial web search). Some suggested areas and organizations for case studies were not included, and a list of possible conservation areas for further research is included in Appendix B. Some of the case studies listed in Appendix B were unable to be included due to lack of information and emails which received no responses.

Content Analysis

There are limits to creating robust triangulation using solely secondary data and document analysis (Bowen, 2009). However, given the goal of this paper to provide a representative scan of Northern Alberta it was deemed acceptable to focus on available organizational and government documents and websites for the analysis. A content analysis was completed using the conceptual framework as a guide. Webpages and available documents such as annual reports. Media, and management plans were used from applicable organizational websites in order to research each case study. Email was used as a primary contact method with organizations in order to request and receive additional documentation to what was found on websites, particularly for the City of Edmonton and Bunchberry Meadows case studies. The conceptual framework was used in order to organize and identify themes found within each case study.

Results

This section will proceed by first offering a contextual overview of Alberta's provincial land management model, followed by results found in four case study models at the provincial, Indigenous-led, municipal and NGO levels in Northern Alberta. Each case study will begin with a contextual overview followed by a descriptive format of the conceptual framework.

Alberta Context

Conserved and protected areas in Alberta fall under a number of categories. Alberta's Land-use Framework (LUF) advises management of public and private lands including natural resources (Government of Alberta, 2008). The LUF includes strategies aimed at sustainable resource development, environmental monitoring and "Aboriginal relations in land-use planning" and knowledge sharing (Government of Alberta, 2008, p. 4). The framework includes

intentions towards seven watershed regional plans (many which are currently ongoing) and the inclusion of Indigenous advisory boards in decision making around private (including conservation easements) and public land stewardship initiatives (Government of Alberta, 2008).

The Government of Alberta (GOA) has created an Indigenous Wisdom Advisory Panel (Government of Alberta, 2021c) to encourage inclusion of Traditional Ecological Knowledge (also named Traditional Knowledge in certain documents) in decision making. At the parks level, Alberta has numerous models (Government of Alberta, 2021a, 2021d) which generally do not include Indigenous leadership or involvement- however at the Wildland Provincial Park level which is a different model than Provincial Parks, human activities such as hunting and trapping may be allowed with permission of the Minister of Parks (Government of Alberta, 2018).

Provincial Case Study: Kitaskino Nuwenëné Wildland Provincial Park

Context

Kitaskino Nuwenëné Wildland Provincial Park (KNWP)- created in 2019- demonstrates a collaborative effort towards conservation of 1600km^2 traditionally significant lands, with the Mikisew Cree First Nation (MCFN) playing a key role in management, with hopes of further expansion of the park (Campbell, 2019; Gibson MacDonald, 2019; Mikisew Cree First Nation, n.d.).

Located in Northeast Alberta, Treaty 8 territory, KNWP falls within the province's Lower Athabasca regional LUF plan which strongly focuses on oilsands and forestry economies, along with recreation and tourism opportunities. The 2012-2022 LUF plan (Government of Alberta, 2012) states the need to recognize "Aboriginal" (p.5) rights and the intent to consult with First Nations and Métis communities when government decisions may adversely affect

them, it also suggests ways of possibly engaging with "Aboriginal communities" regarding surface water management and tourism opportunities (pp. 63-64).

Collaboration between the provincial and MCFN governments has grown into a recognized Wildland Provincial Park in Northeast Alberta. The MCFN has been working on multiple levels to see Treaty rights recognized, cultural values respected, and land- which is integral to MCFN's very way of being- protected. Many players have been involved including oil and mining industries, NGO stakeholders, and other Cree and Métis communities in northern Alberta (Campbell, 2019; Mikisew Cree First Nation, n.d.; Teck Resources Ltd., 2020). There is a strong relationship as well with the adjacent lands of Wood Buffalo National Park.

Wood Buffalo National Park straddles the border of Alberta and N.W.T. and is one of the largest parks in the world. Designated at a UNESCO World Heritage Site it holds two wetlands of international significance (Parks Canada Agency, 2018) and the "cleanest" bison herd (Alberta Primetime, 2019). 2015 saw the MCFN take initiatives to request Wood Buffalo National Park designated as a UNESCO site "In Danger" (MacIsaac, 2015; Narwhal, 2020) which led to funding from the Canadian government to provide further protection for Wood Buffalo National Park (Narwhal, 2020).

While Wood Buffalo National Park has a similar history to other national parks in Canada where Indigenous peoples were violently displaced from their traditional lands (Binnema & Niemi, 2006; Dickason & Long, 2016; Finegan, 2018; Vannini & Vannini, 2019a; Youdelis, 2016; Zurba et al., 2019), according to Peterson (2018), First Nations and Métis communities were allowed to remain on the land, however their knowledge was largely ignored by parks managers. It is this history that is a part of MCFN's current experience and work towards protecting more of their traditional territory. KNWP lies just south of Wood Buffalo National

Park, creating a buffer zone between the Ronald Lake Bison herd, the Athabasca-Peace Delta, and potential hazards such as industry (Mikisew Cree First Nation, n.d.).

The following conceptual framework results focus primarily on the work of MCFN and available documents providing information regarding KNWP.

Ethical Space

Treaty Acknowledgement

The process towards creating KNWP involved gaining recognition that MCFN treaty rights were not being fulfilled. One example of MCFN taking action towards remedying this was a federal joint review panel in 2018 to recognize how industry was affecting the nation's treaty rights such as water quality (Government of Canada, 2018).

Nation to Nation

Government to government relationships were built through multiple levels of collaboration between the federal, provincial and MCFN governments. The involvement of industry was also essential as Teck, Imperial Oil and Cenovus gave up oil leases (Mikisew Cree First Nation, n.d.). More recently in a provincial government announcement regarding an expansion to the park, CBC (2021) reports that Athabasca Oil Corporation and Cenovus will surrender Crown mineral rights to the area.

Paradigm Shift

Wilderness Ethic

The naming of KNWP demonstrates the connection between humans and land from a Cree perspective. Kitaskino (Cree) Nuwenëné (Dene) means "Our Land," (CBC News, 2021) and in the words of MCFN band councillor Calvin Waquan, it communicates being a part of Mother Earth- which does not mean "living off the land" (Alberta Primetime, 2019). The naming

demonstrates seeing land (which includes water, and all beings) as a living interconnected system.

Human Activity

A report written by The Firelight Group (Gibson MacDonald, 2019) demonstrates through qualitative research the connection between land and continuity of traditional living skills such as hunting, trapping, fishing and beading for the MCFN. The availability of land accessed through traditional rights, allowing for what is termed 'cultural programs' to continue, contribute significantly to environmental and community resiliency. It is the plan according to spokesperson Calvin Waquan to include tourism and human activities in the park, while also including traditional ways of being a part of the land for MCFN (Alberta Primetime, 2019)

Knowledge Systems

MCFN has been cultivating ways of combining Western scientific knowledge with Traditional Knowledge in partnership with Athabasca Chipewyan First Nation (ACFN) and a non-Indigenous environmental consulting firm since 2008. This program sees the employment of 'Environmental Guardians' who are educated in both systems of knowledge for reporting measures such as ice quality and thickness both to MCFN and the federal government (Mikisew Cree First Nation, 2019). A shareable document has also been created by MCFN to demonstrate protocols and activities that inform the community based monitoring program (Mikisew Cree First Nation, 2016).

At the provincial level, the Alberta Plan for Parks (2009) notes how evidence based conservation science decisions can include traditional knowledge of Indigenous peoples.

Provincial Case Study: Indigenous-Led Dene Tha' First Nation Proposed IPCA

The recently proposed IPCA by the Dene Tha' First Nation (DTFN) comes at a time when the GOA's Bistcho Lake sub-regional plan is being finalized. The results below are predominately focused on the DTFN's proposal if an IPCA were to be implemented, while presented along with the wider GOA subregional draft plan which does not make mention of the recently proposed IPCA (likely due to the timing).

Context

Bistcho Lake[3] is located in Northwestern Alberta, Treaty 8 territory, where the traditional lands of the Dene Tha' people saddle the Alberta, BC and Northwest Territories borders, and exhibits the most intact lacustrine habitat in Alberta (DTFN, 2021a). The area is named as a sub-region of Alberta within the Lower Peace region, is considered public land- generally managed for recreation, ecosystem services and natural resource development- and has seen numerous industrial disturbances in the past 70 plus years without any formal protection (Alberta Environment & Parks, 2021b; Alberta Wilderness Association, n.d.). Bistcho Lake is known by the Dene Tha' people to be a place where all Dene Tha' people are connected, referred to by the Elders as "Mbecho" (DTFN, 2021a), and has been named as an Environmentally Significant Area for its wildlife and wetland systems, peat bogs and old growth forest (Alberta Wilderness Association, n.d.). The lake and area has been and continues to be an important harvesting, cultural and spiritual site for the Dene Tha', as re-emphasized during an archaeological dig identifying over 200 artifacts in the area dating back at least 2000 years (DTFN, 2021a, 2021a).

[3] Bistcho Lake is referred to in numerous documents simply as "Bistcho." The lake and surrounding area referenced in different documents does not have a consistent measurement of area, however the lake itself is 462km^2 according to Alberta Wilderness Association, 2018.

The DTFN is a group of Athapaskan speaking Indigenous people with numerous communities in the Bistcho Lake region (DTFN, 2021b). DTFN has recently proposed the creation of an IPCA, submitted May 2021, suggesting how an IPCA around and including Bistcho Lake will fulfill the GOA's goals of caribou conservation and honouring Treaty rights on the road to reconciliation (DTFN, 2021b).

Simultaneously, the GOA is in the process of developing a sub-regional plan for the Bistcho Lake area, within what will be the Lower Peace Region plan, which includes a history of attempts at developing protected areas for caribou habitat (Alberta Environment & Parks, 2021; Alberta Wilderness Association, 2018). The draft plan- which involved public and Indigenous stakeholder engagement- is currently under review and highlights how Treaty rights must be treated much more holistically than the oft thought hunting, fishing and trapping allowance when considered in land-use planning (Alberta Environment & Parks, 2021c). The GOA suggests that most important action in respect for Treaty rights is determining the history and traditional uses of the Bistcho Lake sub-region (Alberta Environment & Parks, 2021c), and the draft plan emphasizes that Indigenous people would have "ongoing access to preferred areas for traditional uses and cultural practices" (Alberta Environment & Parks, 2021b, p.2). Mention is made of how Traditional Knowledge could be influential in the planning process such as avoiding sensitive cultural areas in the restoration of legacy seismic lines and creating recreational trail networks. Other suggestions for Indigenous participation include Indigenous-led tourism, community monitoring programs and habitat restoration opportunities. Concern for maintaining the region's economy through industry, honouring Treaty rights, and planning around sensitive caribou habitat are all demonstrated by GOA's draft plan, with goals of clear boundaries for integrated management (Alberta Environment & Parks, 2021a, 2021b).

DTFN has worked with CPAWS as well in the development of the proposal and the environmental monitoring system. CPAWS as an organization (2020) emphasizes the importance of reconciliation with Indigenous peoples in regards to nature and management of parks and recognizes its role in encouraging all levels of government to partner and support Indigenous-led conservation and stewardship.

The following conceptual framework results focus on the work of Dene Tha' First Nation and the Bistcho Lake IPCA proposal (DTFN, 2021b), while the above summary regarding Alberta's LUF sub-regional draft plan for Bistcho lake area will be kept in mind for the following discussion section.

Ethical Space

Treaty Acknowledgement

The remains of past industry have affected Treaty rights to practice traditional livelihoods within this area- not only have caribou routes been changed but hydro-electric dams, forestry, agriculture and recreation have created cumulative effects threatening Dene Tha' culture (DTFN, 2021b). According to the DTFN, an IPCA would create space for DTFN to make decisions around land use and environmental monitoring integrated with culture and livelihoods, essentially "ensuring that the original stewards of the land have agency in determining how best to protect the unique ecologies in their territory" (DTFN, 2021b, p. 6). A model such as proposed by the DTFN would allow for greater recognition and space for Treaty rights. Simultaneously,

Nation to Nation

It is suggested in the DTFN proposal that the Bistcho Lake IPCA would be cooperatively managed with the GOA, developing a model for collaborative management where the DTFN are

involved in every decision-making process. There is space for agreements and relationships with other local organizations as well, such as work with CPAWS, as already demonstrated in the creation of the proposal. DTFN recognizes that currently no legislation process exists in the province of Alberta to allow for the creation of an IPCA, yet mentions there are mechanisms that can be used and remains hopeful that space can be created for DTFN leadership (DTFN, 2021c).

Cultural Competency

There are suggestions of the opportunity to educate both DTFN members and non-Indigenous visitors to the proposed IPCA, where trail networks would connect with past wagon and dogsled routes, and elevating the use of the Dene names for specific areas. The proposal includes suggestions for Traditional Knowledge gathering at specific sites which would connect DTFN with their culture while providing insight for decision making. This would build on already existing cultural camps that DTFN performs for youth in their community (DTFN, 2021b).

Paradigm Shift

Wilderness Ethic

With goals to allow for traditional livelihoods to exist on traditional territory, the DTFN IPCA demonstrates an approach away from the western wilderness paradigm (DTFN, 2021b).

Human Activity and Knowledge Systems

The proposed IPCA would allow for sustainable harvesting of wildlife and medicinal plants by DTFN members, and cultural activities such as ceremony on their traditional land. This would include environmental monitoring to inform harvesting and ecosystem management decisions, employing a current program initiated by DTFN in partnership with CPAWS which combines Western Science with Traditional Knowledge (CPAWSNAB, 2020; DTFN, 2021b, 2021b), demonstrating the importance and effectiveness of elevating Traditional Knowledge. The IPCA

proposal suggests initiating a Guardian program with members monitoring all aspects of the protected area using Traditional Knowledge combined with Western science. The methods employed in environmental monitoring (which has already seen success in its current form) would demonstrate an equality between knowledge systems, elevating diversity and inclusion in the province (DTFN, 2021, p.2)

Municipal Case Study: Edmonton North Saskatchewan River Valley

Context

The North Saskatchewan River Valley (NSRV) situated in the City of Edmonton (COE) provides a case study with diverse stakeholders, and a public which generally considers it the municipality's greatest asset (River Valley Alliance, 2021a). The protected area within the city limits encompasses over 7400 hectares and over 100 kilometres of river, ravines and tributaries and is considered the largest urban park in Canada (02 Planning + Design Inc., 2020; City of Edmonton, 1992; River Valley Alliance, 2018). The region is named "Parkland Ecotone" for the convergence of boreal forest with prairie, presenting a high level of biodiversity of both prairie and boreal species (02 Planning + Design Inc., 2020, p. 3).

With the second largest urban Indigenous population in Canada (City of Edmonton, 2021a), the area has a rich history of First Nations inhabitants including the Plains and Woodland Cree, Stoney, Saulteaux, Dene, Nakota-Sioux, Tsuu T'ina and Blackfoot, and more recently the Metis and Inuit (02 Planning + Design Inc., 2017). When the Indian Act was created, these communities were displaced (02 Planning + Design Inc., 2020). Both Enoch (originally named Stony Plain) and Papachase Cree Nations had reserves lining the NSRV and Blackmud creek, where historical sites have been found (02 Planning + Design Inc., 2017). An overview completed for the COE found 82 of 101 historical sites in the river valley system are prehistoric

(meaning pre-European contact) and many more unknown sites that have "high archaeological potential" (02 Planning + Design Inc., 2017, p. 31).

Numerous NGOs are currently involved in Edmonton's NSRV involving conservation and education initiatives. For the purpose of this case study, they will not be explored in depth, but two mentioned by name here are The North Saskatchewan River Valley Conservation Society (NSRVCS), the Edmonton River Valley Conservation Coalition (ERVCC), where both include voices supporting the preservation of the river valley from human impact (ERVCC, 2021; NSRVCS, n.d.). Of note for its partnership with the COE, the originally grassroots River Valley Alliance (RVA) now works as an incorporated company, influencing and implementing trail planning and development with public funds. The RVA's 2021-2024 strategic plan report notes the importance of engaging with Indigenous communities particularly in finding a name for the river valley trail (River Valley Alliance, 2021a, 2021b).

The COE has a history of actively purchasing and regulating land use around the river valley with goals of preservation (02 Planning + Design Inc., 2020; ERVCC, n.d.). The COE has been working to revamp and revitalize its Ribbon of Green (ROG) plan[4], which has not seen updates since 1992 and does not include the Northeast or Southwest sections of the river valley system. With the public and Indigenous engagement portions complete, the plan is waiting public hearing after its submission (City of Edmonton, 2020). The 2020 ROG Plan is informed by reports and assessments including individual reports for recreational resources, cultural resources and ecological resources, as well as existing city plans and policies for natural areas (02 Planning + Design Inc., 2020; City of Edmonton, 2021c).

[4] From this point the City of Edmonton's 2020 Ribbon of Green Northeast + Southwest Plan will be referred to as the 2020 ROG Plan.

Concurrently, February 17, 2021 saw the COE pass the "Indigenous Framework," co-created between the COE and Indigenous elders, knowledge keepers, youth and community members; providing guidance and direction on improving relationships with Indigenous peoples in Edmonton (City of Edmonton, 2021d). The COE's Indigenous Framework webpage states the magnitude of wrongs in how Canada has abused treaty relationships and acknowledges "historical traumas and current disparities" and has committed to developing respectful relationships between "all city employees and Indigenous peoples" (I. R. O. City of Edmonton, 2021).

At the provincial level, the North Saskatchewan Regional Plan has recently had its second round of consultation with stakeholders (Government of Alberta, 2016), which includes an advisory board report suggesting the implementation of core staff cultural competency training, and encouragement for the Alberta Biodiversity Monitoring Institute to partner with "Aboriginal knowledge" for the benefit of the ecosystem and First Nations and Metis communities (NS Regional Advisory Council, 2014, p.31).

The following conceptual framework results focus primarily on the COE's 2020 ROG Plan (02 Planning + Design Inc., 2020) which has worked to develop system wide policies which will apply to the whole river valley system, including ravines and tributaries within the municipal limits. On the whole, the plan reports that public and Indigenous engagement sessions demonstrated a strong concern for the ecological integrity (including wildlife corridors and natural areas of the river valley system), along with desire to balance recreational activities locally within the system (02 Planning + Design Inc., 2020). The newly created Indigenous Framework (City of Edmonton, 2021d) will also be included within the conceptual framework results.

Ethical Space

Treaty Acknowledgement

The 2020 ROG Plan begins with acknowledging Treaty Six Territory and Métis Region Four, while calling upon the "collective honoured traditions and spirits of Indigenous peoples and Edmontonians" (02 Planning + Design Inc., 2020 p.III) to work in protecting the NSRV. The plan also states that ongoing dialogue is needed with First Nations and Métis people as development continues, where particular sites will need special attention.

Nation to Nation

The work being done within the COE's Indigenous Relations Office and the development of the new Indigenous Framework demonstrates nation to nation (or government to government) work in relationship building. Particularly with Enoch Cree Nation beginning in 2016 according to the COE webpage (City of Edmonton, 2021b). There was nothing of note on Enoch Cree Nation's website regarding particular relationship with the COE (Enoch Cree Nation, 2018).

The 2020 ROG Plan created a separate stream for Indigenous Engagement with the goal of understanding how "issues and concerns" (02 Planning + Design Inc., 2019, p.3) could be addressed and how to include input in meaningful ways. The Indigenous Engagement portion highlights seven themes found, including the importance of ceremonial spaces in the river valley and the importance of involving Indigenous communities early in any planning processes (02 Planning + Design Inc., 2019).

There is mention made of a possible partnership with Enoch Cree Nation using Traditional Knowledge to create a trail system for Wedgewood Ravine (02 Planning + Design Inc., 2020) when its development occurs. There are also current plans underway with a tri-government partnership between the COE, the Province of Alberta and Enoch Cree Nation regarding the

development of Big Island Provincial Park which sits within the municipal limits (Government of Alberta, 2021b).

Cultural Competency

The Indigenous Framework (City of Edmonton, 2021d) emphasizes the importance of relationship building and education for COE employees. Indigenous Awareness Training is mandatory for all staff at the COE (EndPovertyEdmonton, 2021). A finding reported in the 2020 ROG Plan is the non-Indigenous public emphasizing the importance of increased Indigenous cultural representation through "engagement and education" in the river valley system (02 Planning + Design Inc., 2020, p. 13). The 2020 ROG Plan introduces a policy for education and awareness which could include renaming of places and signage to honour Indigenous heritage (02 Planning + Design Inc., 2020, p. 31)

Paradigm Shift

Wilderness Ethic

Language use around ecological integrity and the protection of the river valley system demonstrates a western paradigm in terms of protecting nature from "human impact" (02 Planning + Design Inc., 2020, p. 10)

Human Activity

With goals of minimizing human impact, the 2020 ROG Plan introduces policies that encourage meaningful engagement and collaboration with Indigenous communities, particularly to name cultural resources in the river valley where traditional uses could be practiced and "supported throughout the system" (02 Planning + Design Inc., 2020 p. 10). Cultural resources would include identifying and monitoring medicinal plants, significant areas such as burial sites, spaces for powwows and cultural learning.

Knowledge Systems

Throughout the 2020 ROG Plan there are suggestions to have policies and programs informed by Traditional Knowledge. These suggestions focus predominately on how collaboration with Indigenous communities could identify, monitor and protect cultural resources. In committing to work with the Provincial and Federal governments towards the CBD's Aichi Biodiversity targets, and naming the need for a system-wide monitoring program in partnership with conservation and research institutions, the plan makes one mention where Indigenous knowledge systems could be a part of "co-creating and co-managing" (02 Planning + Design Inc., 2020, p. 158) biodiversity in the river valley system.

NGO Case Study:

Bunchberry Meadows, Nature Conservancy of Canada and Edmonton Area Land Trust

Context

At the private land ownership level, land trust and conservation easement models in Alberta seek to protect land from development. This case study looks at two NGOs with projects in the North Saskatchewan region using these models for conserved and protected areas.

The non-profit organization Nature Conservancy Canada (NCC) works to prevent habitat loss across Canada, partnering with private landowners, government, organizations, foundations and Indigenous communities towards owning or managing land through easements, donation or purchase for long term management of ecologically significant lands (NCC, 2020b, 2020f). On a national level, NCC's work has included partnerships with Indigenous communities across the country in order for "Indigenous perspectives" to be a part of local project management practices (NCC, 2020c, 2020g). NCC's focus in Northern Alberta includes the upper North Saskatchewan River Basin and Cooking Lake Moraine (NCC, 2020d), and more recently the North East Alberta

Boreal Natural Area (NEAB NA) where a partnership with NCC, Tallcree First Nation, the governments of Alberta and Canada, and industry allowed for the development of Birch River Wildland Provincial Park (NCC, 2017, 2018).

Edmonton and Area Land Trust (EALT) is a non-profit organization partnering with volunteers, landowners, and Edmonton based foundations working to secure and steward lands through donations and conservation easements within a 150 km radius of Edmonton (EALT, 2021c). EALT uses an adaptive management model to conserve ecologically important lands for future generations and is active in community education and awareness (EALT, 2021c).

NCC and EALT have partnered together in ownership and conservation of Bunchberry Meadows; a 640 acre parcel of land west of Edmonton within the Devon Dunes Environmentally Significant Area and an important wildlife corridor hosting a diverse array of plants and wildlife (EALT, 2021b; NCC, 2020a). The following conceptual framework results focus on the Bunchberry Meadows Management Plan (BMMP) [received via email from NCC staff, June 18, 2021], annual reports, website information and strategic plans from both EALT and NCC, and NCC's 2019 created Indigenous Conservation Engagement Framework (NCC, 2019).

Ethical Space

Acknowledging treaty or Indigenous people or communities is absent in the NCC BMMP, therefore it will not be mentioned in the following sections.

Treaty Acknowledgement

At the organizational level, EALT acknowledges being present on Treaty Six territory and begins volunteer events with this acknowledgement (EALT, 2020b, 2021d). EALT also has a section on their website outlining Indigenous connections to each of their conservation areas including

Bunchberry Meadows (EALT, 2021a). On their "Indigenous Connections" webpage, NCC recognizes that Indigenous peoples cared for the land for millennia (NCC, 2020g).

Nation to Nation

EALT's 2020-2025 strategic plan makes mention in one target to include Indigenous communities in conservation awareness and stewardship work (EALT, 2020a). In their organizational level Indigenous Framework document, NCC commits to creating site specific management plans to managing Indigenous cultural resources as well as developing meaningful relationships with Indigenous advisors (NCC, 2019). NCC also makes mention of partnering with Indigenous conservation initiatives to further IPCAs across Canada (NCC, 2020g).

Cultural Competency

EALT demonstrates awareness of the importance of cultural awareness through a joint naming project of a conservation area (not Bunchberry Meadows) along with Amiskwaciy Academy and MacEwan University (EALT, 2021e) and has had one staff member complete an Indigenous peoples engagement training (EALT, 2020a). NCC's Indigenous Framework document and webpage dedicated to Indigenous conservation projects makes multiple mentions of creating cultural awareness staff training, to be developed alongside Indigenous advisors and institutions to create meaningful relationships and conservation partnerships (NCC, 2019, 2020g).

Paradigm Shift

Wilderness Ethic

With the primary organizational focus being on conservation and prevention of development on lands which are ecologically significant, both EALT and NCC display a western paradigm regarding nature preservation (EALT, 2021c; NCC, 2020e).

Human Activity

The BMMP does not allow for any hunting or picking of plants. No evidence was found in EALT's or NCC's documents regarding human activity or reviewing of policies to allow for human activity other than recreational activity such as walking and wildlife watching.

Knowledge Systems

At the organizational level, NCC demonstrates a willingness to learn from and partner with Indigenous knowledge systems. Mention is made that NCC can learn from Indigenous peoples, and also suggests NCC could be helpful in offering conservation science knowledge to Indigenous communities (NCC, 2019, 2020g). NCC specifically notes intention to integrate "multiple knowledge systems into our culture, policies and practices" to guide future work (NCC, 2019 p.9). No evidence was found of EALT incorporating Indigenous knowledge systems into their conservation work.

Discussion

The objective of this paper has been to complete a representative sample scan of conservation efforts in Northern Alberta for themes highlighted in the ICE Report regarding IPCAs. A conceptual framework was developed through the literature review and methods sections, which was then used to complete a content analysis for each of the selected case studies. The themes of Ethical Space and Paradigm Shift along with their suggested indicators offered a framework to demonstrate whether themes highlighted in the ICE Report exist in the selected Northern Alberta case studies. Ethical Space indicators included whether UNDRIP or Treaty is recognized, if nation to nation (or government to government) agreements exist, and whether cultural competency training is utilized for management staff. Paradigm Shift indicators included whether the wilderness ethic persists through management language use, if traditional

human activity is allowed in conserved and protected areas, and whether Traditional Knowledge is held as equal to Western scientific monitoring tools. This discussion section will proceed by interacting first with themes found around Ethical Space, and then regarding Paradigm Shift.

Ethical Space

The goal in looking for indicators related to Ethical Space was to determine whether wrongs have been acknowledged and space created for Indigenous leadership or decision-making roles in conserved and protected area management- which are essential actions according to the ICE Report.

Generally it was found that there is evidence of Ethical Space in all four case studies. At the very least, treaty was acknowledged by all governments and organizations, and to varying degrees cultural awareness training, government to government partnerships and initiatives or plans towards re-naming culturally significant areas exist in each of the case studies. Nothing was found in direct reference to UNDRIP, and there was minimal evidence of acknowledging past wrongs.

Each case study demonstrated a recognition and evidence of government to government or organizational partnerships. This is seen in the KNWP collaboration between MCFN and the GOA; in NCC's work with Tallcree First Nation, the GOA and industry; between the COE and Enoch Cree Nation; with the DTFN proposing a relationship with the GOA; and CPAWS playing a support role to DTFN. The depth of analysis is not sufficient to place an evaluation on these partnerships, however it is noted that the partnerships exist and may indicate a move towards meaningful relationships where Indigenous leadership has decision making power.

Cultural awareness or competency initiatives were found in different forms in the four case studies. At the provincial level, evidence of cultural awareness training was not found

within the documents analysed, however it may exist. The DTFN's IPCA proposal demonstrates the opportunity for education through tourism for non-Indigenous visitors, stemming out of existing cultural camps for Indigenous youth. At the municipal level, the COE completes Indigenous Awareness training for all staff, and the ROG plan provides an invitation for naming culturally significant areas and educational signage. At the NGO level, NCC demonstrates a plan to develop Indigenous awareness training for all staff, which is planned to be developed alongside Indigenous advisors.

The presence of the suggested Ethical Space indicators in the four case studies demonstrates recognition on all levels of the need for increasing Indigenous involvement and leadership. It is clear that Indigenous involvement or engagement does not equate Indigenous leadership or decision-making roles, which is one of the goals named in the ICE Report. Within the four case studies, the two that demonstrated Indigenous leadership or decision-making power were those where the First Nation has taken initiative- with MCFN and DTFN. In the case of MCFN, the nation has taken time to develop an environmental monitoring system and also used publicity to highlight the need for protecting traditional lands. This initiative may have had an effect on the GOA partnering in developing KNWP, though this suggestion has not been analysed in this paper. Though collaboration was highlighted, it was not clear whether MCFN has equal decision-making power to the province in the management of the park. In the DTFN proposal, the suggestion is that DTFN would be included in every decision-making process, which would create the Ethical Space emphasized in the ICE Report and essential in the movement towards reconciliation.

Paradigm Shift

The goal with the theme Paradigm Shift and its indicators was to name whether there is evidence in Northern Alberta conserved and protected areas of a move towards a more holistic management approach rather than the "siloed" (Zurba et al., 2019, p. 10) Western-style approach. The four case studies demonstrate evidence of this shift in varying degrees.

It appeared that the "wilderness ethic" (Youdelis et al., 2020, p. 247) exists quite strongly in the four case studies, particularly in the use of language regarding the protection of nature from humans, which is seen further where the indicators of Human Activity and Knowledge Systems were analysed. Where Western structures are involved in management, namely the GOA, COE and NGO examples, there are specific goals within organizational documents to protect nature from the impact of humans, whether industry or over-use. The DTFN IPCA proposal also emphasized the need to protect the land from industry. The aim here is not evaluation, but to name the existence of a paradigm that keeps humans separate from nature.

It was found that there is space for human activity at the provincial level in Wilderness Parks beyond light recreational use, but that it would only be through the permission of the minister. It is clear that without the appropriate relationship, conserved and protected area managers would not want to allow activities such as hunting, trapping and medicinal plant gathering. However, where language and policy allow (or is planned to allow), there is a paradigm where humans are seen as part of nature. The naming of KNWP (which recognized humans as part of the land rather than humans living off the land) and plans for educational tourism as seen in the DTFN IPCA proposal are examples of this. The COE ROG plan leaves space for cultural activity such as Indigenous ceremonies and plant gathering in designated areas, which is a shift towards a holistic view, however it is still taking place within a Western siloed

approach where the municipality remains in control. The BM conservation plan left no room for human activity beyond light recreational walking.

From the four case studies it appears that where collaborative models exist, such as KNWP and the DTFN IPCA proposal, a paradigm shift towards managing as though humans are a part of nature is stronger. This could be a result of each First Nation's initiative, and perhaps because both MCFN and DTFN are located in less populated areas of Northern Alberta- a suggestion not addressed further in this paper.

In all four case studies there was evidence of including Traditional Knowledge systems, in varying degrees. The environmental monitoring programs initiated by both the MCFN and DTFN demonstrate a significant shift towards (or back to) a paradigm where more than one knowledge system is recognized. The small reference in the COE's ROG plan to possibly include Traditional Knowledge and Indigenous people in developing a comprehensive environmental monitoring program is a suggested move away from the Western wilderness paradigm approach. Yet the findings in the ROG plan demonstrated a focus more often on how Traditional Knowledge could help identify and preserve culturally significant areas rather than being a source of scientific knowledge. Similar to the ROG plan, the provincial examples of LUF developments also demonstrate short comments regarding Traditional Knowledge and the need to include it, yet current management of conserved and protected areas do not employ it as equal to Western science. The Indigenous Framework of NCC demonstrates a desire to include Traditional Knowledge systems, and to expand its own work in this area- however as seen in the BM plan, it is not seen at play in all situations.

While evidence exists demonstrating shifts towards the inclusion of human activity and multiple knowledge systems in the four conserved and protected area cases, they are small steps

towards what could be considered a holistic management approach. Where MCFN and DTFN have initiated and developed systems to include Traditional Knowledge and have opportunity to practise traditional livelihoods on their traditional lands, the shift is clearer. Future intentions offered both by the ROG plan and NCCs Indigenous Framework, demonstrate a desire towards a more holistic management approach, where human involvement would look different than the general Western paradigm. However, the intentions may or may not include Indigenous leadership and decision-making roles, which again, is emphasized in the ICE Report as essential on the road towards reconciliation and Indigenous partnership in conserved and protected area management.

Are the Themes and Indicator Findings Meaningful?

While each indicator and wider themes of Ethical Space and Paradigm Shift had demonstrable evidence in each of the four case studies, these indications may or may not suggest a shift towards the envisioned partnerships and reconciliation discussed in the ICE Report. As noted in the literature review, when a Western structure is the dominant or decision-making power, these indicators could also mean a continuation or furthering of the colonial approach (Anderson & Flynn, 2020; Artelle et al., 2019; Finegan, 2018; Porter & Barry, 2016; Youdelis, 2016), or become token programs (Plotkin & Firelight Group, 2018; Reed et al., 2021). This could occur by replacing Indigenous voices with advisory boards (as could be possible with Alberta's IWAP) or gathering of Traditional Knowledge (as seen in the Indigenous engagement portions of the ROG plan), or not creating space for Indigenous decision-making roles. For example, limited results were found to demonstrate whether decision making power is held by Indigenous communities, with the exception of the possible DTFN led IPCA. It was also found that provincial policies are not in place for creating IPCAs which is a structural issue preventing

Indigenous leadership. As well, the provincial sub-regional draft plan for the Bistcho lake area (Alberta Environment & Parks, 2021b) suggests inclusion of Indigenous knowledge, yet it is not clear whether it would be held in equal value to Western science systems. Zurba et al. (2019) suggest that collaborative agreements (such as that seen with KNWP) often occur where treaty exists and therefore there is less incentive for (provincial) governments to devolve power, which would allow for Indigenous leadership. Without further research, it is challenging to see how the collaborative KNWP plays out in terms of power roles.

Municipally, the COE demonstrates increasing work towards engaging with Indigenous governments, with space encouraged on all levels to include Indigenous input and knowledge- however, as Porter and Barry (2016) suggest, planning models themselves may need to be destructured to enable "decolonizing intercultural capacity among non-Indigenous planning actors" (p. 16) to go beyond engagement or invitational inclusion. For example, the ROG plan leaves an invitation for Traditional Knowledge to influence planning, but there is no space where Indigenous leadership might make decisions. Anderson and Flynn (2020) note that often there are no policies in place at the municipal level to encourage or allow for Indigenous government management of a particular area. Fraser (2018) notes as well that when the duty to consult is performed by planners, it can often inundate "understaffed and underfunded" (p. 12) First Nations or Métis consultation offices. Without further research involving the viewpoint of the involved Indigenous people, this paper cannot demonstrate the effectiveness of the COE's Indigenous engagement work within the ROG plan. Further research could investigate how the themes suggested by the ICE Report can be seen, or what the ideal would look like, in urban centres.

The content analysis sought to determine whether indications existed towards themes presented in the ICE Report, and found that they do exist in varying degrees in the four case studies analysed. These indications are a suggestion that Northern Alberta has cases where governments and organizations recognize the need and create space for Indigenous leadership, however as Anderson and Flynn (2020), Finegan (2018), and Youdelis et al. (2020) suggest, these types of initiatives may not go far enough.

Naming where the indicators of Ethical Space and Paradigm Shift exist in the four case studies occurs with hope that further work will be done in these areas at all levels within Northern Alberta conserved and protected areas. It is recognized that the presence of these indicators, where found, is only a suggestion of movement towards increased Indigenous leadership of conserved and protected areas. Further research and inquiry are needed to demonstrate whether the indicators lead to on the ground evidence of Indigenous government or community roles that go beyond engagement and towards Indigenous leadership and decision making in each case study. While these results are limited in terms of translating from indicators to experienced Indigenous leadership or creating space for future Indigenous leadership, Porter and Barry (2016) also note that actions such as Indigenous advisory boards and engagement can also be a start towards building a system of recognition.

Challenges and Limitations

This paper has offered a representative scan of Northern Alberta, and does not claim to be comprehensive. It is also with the recognition that the cases studies examined, aside from the DTFN IPCA proposal, do not claim or aim to be IPCAs. As the ICE Report notes as well, not all IPCAs are the same and neither are conserved and protected areas throughout the province. This creates a challenge in comparing cases to the identified themes of Ethical Space and Paradigm

Shift. However, the framework was created and used with the intention to find and name themes that could be applied in multiple situations, and on a large scale to represent possible movements towards reconciliation. Additional research could be done to further develop this conceptual framework for comparative analysis of conserved and protected area management situations in Canada to monitor movements towards reconciliation.

One challenge with the framework was the complexity of each indicator, such as naming where the "wilderness ethic" (Youdelis et al., 2020, p. 247) might exist, and translating that into a meaningful analysis. The wilderness ethic underlies much of the conservation work in Canada, and could be a research topic in itself discussing its effect on preventing balanced human activity in conserved and protected areas. Naming the theme Paradigm Shift was also a challenge since it could be interpreted that it is a shift to something new, when the intention is to name a shift from a siloed Western approach. Another theme that was intended to surface in the research but had limited results was where decision making power lies in each case study. Decision making power would seem to be an essential indicator of Ethical Space and could have been its own indicator. Zurba et al. (2019) and Artelle et al. (2019) both emphasize that reconciliation must include Indigenous leadership in decision making processes.

A challenge in creating robustness of each case study is the availability and number of documents for each case study. For example, while there were many documents available from NCC, the organization is at the beginning of introducing Indigenous leadership into their modes of managing and caring for lands; whereas it was more challenging to find documentation of the Indigenous-led environmental monitoring carried out by MCFN in KNWP.

Questions for further research could include developing methods to measure whether the indicators suggested in this paper translate into on the ground evidence of increased Indigenous

leadership and decision-making roles in conserved and protected area management. For example: whether educational tourism offers an ethical space for cultural competency and whether collaborative management models give equal decision-making power. One missing piece which may exist is to find reports or guidelines in addition to the ICE Report (2018) initiated and developed by First Nation or Métis communities. Other questions include why cases with increased demonstrable evidence seem to occur with more frequency in further north areas- as is seen with Guardian programs happening with more frequency in further north areas such as the Northwest Territories. Another question for further research would be whether medicinal plant gathering could be an opportunity for non-Indigenous and well as Indigenous people. Developing models for humans to be participants in the care of conserved and protected areas will be an ongoing challenge, particularly if a shift to a new conservation paradigm is to occur from Western-style protected area management.

A last note highlighting the difference between Western-style approaches which can often be siloed, is the very term "management," which is not a term that fits into traditional Indigenous relationship with the land. This difference demonstrates one of the challenges in creating and cultivating partnered and collaborative conservation work within a Western-dominant society.

Conclusion

This representative scan of Northern Alberta demonstrates that there are movements creating space for Indigenous leadership within conserved and protected areas. There remains the challenge of Western structures maintaining control of conserved and protected areas which may inhibit further movement towards Indigenous-led conservation projects, such as the lack of provincial policy for the creation of an IPCA. Regardless of the management model, it was found

that acknowledging past wrongs, building relationships between governments, and environmental monitoring work where Indigenous knowledge systems are treated as equal to Western knowledge are all important steps towards encouraging Indigenous partnership in the conservation of all protected areas in Canada. While the case studies were limited in highlighting Indigenous-led conservation projects, themes of Ethical Space were present in all four case studies which could be ground laying work for further partnerships and ideally more Indigenous-led conservation areas in Northern Alberta. Themes of Paradigm Shift were more limited, and present more clearly in projects with Indigenous leadership involvement as seen in KNWP and the DTFN's IPCA proposal. Further research is suggested to investigate whether the findings are experienced as Ethical Space and Paradigm Shift by First Nations and Métis communities in Northern Alberta.

References

02 Planning + Design Inc. (2017). *City of Edmonton Ribbon of Green Historical Resources Overview: Cultural Assessment of Study Areas 1 and 2*. https://www.edmonton.ca/sites/default/files/public-files/assets/PDF/RoG_CulturalAnalysis.pdf?cb=1624904774

02 Planning + Design Inc. (2019). *City of Edmonton Ribbon of Green: Engagement Summary*. https://www.edmonton.ca/sites/default/files/public-files/assets/RibbonofGreenSW_NEEngagementSummaryFeb2019.pdf?cb=1624904774

02 Planning + Design Inc. (2020). *City of Edmonton Ribbon of Green Plan SW&NE*. https://www.edmonton.ca/sites/default/files/public-files/assets/RibbonofGreenSW_NEPlanJune2020.pdf

Alberta Environment & Parks. (2021). *Bistcho Lake Sub-regional Plan engagement*. https://www.alberta.ca/bistcho-lake-sub-regional-plan-engagement.aspx

Alberta Environment & Parks. (2021a). *Bistcho Lake Profile*. https://www.alberta.ca/bistcho-lake-sub-regional-plan-engagement.aspx

Alberta Environment & Parks. (2021b). *Sub-regional Draft Plan, Bistcho Lake*. https://www.alberta.ca/bistcho-lake-sub-regional-plan-engagement.aspx

Alberta Environment & Parks. (2021c). *Sub-Regional Planning: Supporting Indigenous Land Use*. https://www.alberta.ca/bistcho-lake-sub-regional-plan-engagement.aspx

Alberta Primetime. (2019). *Alberta Primetime for Wednesday, March 13, 2019*. Alberta. https://alberta.ctvnews.ca/mobile/video?clipId=1630108

Alberta Wilderness Association. (2018, December 1). *Getting to know Bistcho*. Alberta Wilderness Association. https://albertawilderness.ca/getting-to-know-bistcho/

Alberta Wilderness Association. (n.d.). *Bistcho*. Alberta Wilderness Association. https://albertawilderness.ca/issues/wildlands/areas-of-concern/bistcho/

Anderson, D., & Flynn, A. (2020). Rethinking "Duty": The City of Toronto, A Stretch of the Humber River, and Indigenous-Municipal Relationships. *Alberta Law Review*, *58*(1), 107–132. Academic Search Complete.

Anderson, M. K., & Barbour, M. G. (2003). Simulated Indigenous Management: A New Model for Ecological Restoration in National Parks. *Ecological Restoration*, *21*(4), 269–277.

Artelle, K. A., Zurba, M., Bhattacharyya, J., Chan, D. E., Brown, K., Housty, J., & Moola, F. (2019). Supporting resurgent Indigenous-led governance: A nascent mechanism for just and effective conservation. *Biological Conservation*, *240*, 108284. https://doi.org/10.1016/j.biocon.2019.108284

Bacon, J. M. (2019). Settler colonialism as eco-social structure and the production of colonial ecological violence. *Environmental Sociology*, *5*(1), 59–69. https://doi.org/10.1080/23251042.2018.1474725

Bell, N. (2013). Anishinaabe Bimaadiziwin. In A. Kulnieks, D. R. Longboat, & K. Young (Eds.), *Contemporary Studies in Environmental and Indigenous Pedagogies: A Curricula of Stories and Place* (pp. 89–107). SensePublishers. https://doi.org/10.1007/978-94-6209-293-8_6

Berkes, F., Colding, J., & Folke, C. (2003). *Navigating social-ecological systems: Building resilience for complexity and change.* (MacEwan University - Internet Internet Access). Cambridge University Press; University of Alberta Library. https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=cat03710a&AN=alb.8421434&site=eds-live&scope=site

Binnema, T. (Ted), & Niemi, M. (2006). 'Let the Line be Drawn Now': Wilderness, Conservation, and the Exclusion of Aboriginal People from Banff National Park in Canada. *Environmental History*, *11*(4), 724–750. https://doi.org/10.1093/envhis/11.4.724

Borrini-Feyerabend, G., Union internationale pour la conservation de la nature et de ses ressources, Protected Areas Programme, & Congrès mondial sur les parcs nationaux et aires protégées (Eds.). (2014). *A primer on governance for protected and conserved areas: IUCN World parks congress, Sydney 2014*.

Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, *9*(2), 27–40. https://doi.org/10.3316/QRJ0902027

Campbell, C. (2019, March 1). *Welcome to Kitaskino Nuwenëné Wildland Provincial Park*. Alberta Wilderness Association. https://albertawilderness.ca/welcome-to-kitaskino-nuwenene-wildland-provincial-park/

CBC News. (2021). *Alberta plans massive expansion of Kitaskino Nuwenëné Wildland area | CBC News*. CBC. https://www.cbc.ca/news/canada/edmonton/alberta-boreal-forest-kitaskino-nuwen%C3%ABn%C3%A9-wildland-1.5910850

City of Edmonton. (2020). *Indigenous Engagement Overview Ribbon of Green Completion and River Valley ARP Modernization*.

City of Edmonton. (2021a). *Indigenous Relations | City of Edmonton*. https://www.edmonton.ca/city_government/initiatives_innovation/indigenous-relations

City of Edmonton. (2021b). *Relationship with Enoch Cree Nation | City of Edmonton*. https://www.edmonton.ca/city_government/city_organization/relationship-with-enoch-cree-nation

City of Edmonton. (2021c). *Ribbon of Green | City of Edmonton*. Ribbon of Green River Valley Planning Modernization. https://www.edmonton.ca/city_government/initiatives_innovation/ribbon-of-green?utm_source=virtualaddress&utm_campaign=ribbonofgreen

City of Edmonton. (2021d). *Indigenous Framework | City of Edmonton*. https://www.edmonton.ca/city_government/initiatives_innovation/community-engagement-indigenous-framework

City of Edmonton, Indigenous Relations Office. (2021). *Indigenous Framework Webpage*. https://www.edmonton.ca/city_government/initiatives_innovation/community-engagement-indigenous-framework

City of Edmonton, Parks and Recreation. (1992). *Ribbon of Green Master Plan 1992*. https://www.edmonton.ca/sites/default/files/public-files/assets/PDF/Ribbon_of_GreenMaster_Plan.pdf

Conservation Canada. (2018). IPCA and ICE Report Information Sheet. https://static1.squarespace.com/static/57e007452e69cf9a7af0a033/t/5ace55d46d2a73d1846e53f0/1523471830134/IPCA+and+ICE+-+Information+Sheet.pdf

Conservation Through Reconciliation Partnership. (2020, October 8). *What is Ethical Space?* https://www.youtube.com/watch?v=kjjUi-5qra0

CPAWS, Canadian Parks and Wilderness Society. (2020). *CPAWS Parks Report 2020: Healthy Nature Healthy People*. https://cpawsnab.org/all-publications/

CPAWSNAB. (2020). *CPAWS Northern Alberta Annual Report 2020*. https://cpawsnab.org/wp-content/uploads/CPAWSNAB_AnnualReport2020_Final.pdf

Cronon, W. (1996). The Trouble with Wilderness: Or, Getting Back to the Wrong Nature. *Environmental History*, *1*(1), 7–28. https://doi.org/10.2307/3985059

Dearden, P., Rollins, R., & Needham, M. (2016). *Parks and protected areas in Canada: Planning and management.* (University of Alberta Rutherford - Humanities & Social Science QH 77 C2 P252 2016; Fourth edition.). Oxford University Press; University of Alberta Library. https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=cat03710a&AN=alb.7219288&site=eds-live&scope=site

Dickason, O. P., & Long, D. A. (2016). *Visions of the heart: Issues involving Aboriginal peoples in Canada.* (King's University E 78 C2 V57 2016; Fourth edition.). Oxford University Press; University of Alberta Library. https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=cat03710a&AN=alb.7336214&site=eds-live&scope=site

DTFN. Dene Tha' First Nation. (2021a). *Dene Tha' Supporting Resiliency and Refuge around Bistcho Lake*. https://bistcholake.ca/

DTFN. Dene Tha' First Nation. (2021b). *Reconnection, Resiliency and Refuge: The Case for an IPCA at Bistcho Lake*. https://bistcholake.ca/the-case-for-an-ipca-at-bistcho-lake/

DTFN. Dene Tha' First Nation. (2021a). *Bistcho Lake*. https://bistcholake.ca/bistcho-lake/

DTFN. Dene Tha' First Nation. (2021b). Dene Tha' Projects. https://bistcholake.ca/projects/

DTFN. Dene Tha' First Nation. (2021c). *IPCA at Bistcho*. https://bistcholake.ca/ipca/

Dunlap, R. E., & Catton, W. R. (1994). Struggling with human exemptionalism: The rise, decline and revitalization of environmental sociology. *The American Sociologist*, *25*(1), 5–30. https://doi.org/10.1007/BF02691936

EALT, Edmonton and Area Land Trust. (2020a). *Edmonton & Area Land Trust Strategic Plan 2020-2025*. https://static1.squarespace.com/static/569ec99b841abaccb7c7e74c/t/5faece069071527666f2c721/1605291535422/Edmonton+and+Area+Land+Trust+Strategic+Plan+2020-2025-compressed.pdf

EALT, Edmonton and Area Land Trust.. (2020b, January 3). *Traditional Stewards of the Land*. Edmonton & Area Land Trust. https://www.ealt.ca/indigenous-connections-blog-list/traditional-stewards-land

EALT, Edmonton and Area Land Trust. (2021a). *Amiskwaciy-wâskahikan (Edmonton) History*. https://www.ealt.ca/indigenous-connections-blog-list/amiskwaciy-wskahikan-edmonton-history

EALT, Edmonton and Area Land Trust. (2021b). *Bunchberry Meadows*. https://www.ealt.ca/bunchberry-meadows

EALT, Edmonton and Area Land Trust. (2021c). *Edmonton & Area Land Trust 2020 Annual Report*. https://static1.squarespace.com/static/569ec99b841abaccb7c7e74c/t/60c0e52ba0d13b2463e5706a/1623254327460/EALT-2020-Annual+Report.pdf

EALT, Edmonton and Area Land Trust. (2021d). *Indigenous Acknowledgement*. https://www.ealt.ca/indigenous-acknowlegement

EALT, Edmonton and Area Land Trust. (2021e). *maskihkîy meskanaw—Medicine Trail*. https://www.ealt.ca/indigenous-connections-blog-list/maskihky-meskanaw-medicine-trail

ENC, Edmonton Nature Club (2021). Nature Edmonton. https://www.edmontonnatureclub.org/

EndPovertyEdmonton. (2021). *Year 2 Progress—Training for City of Edmonton staff*. EndPovertyEdmonton. https://www.endpovertyedmonton.ca/posts/y2-progress-i-competency-training-coe

Enoch Cree Nation. (2018). *About Us*. https://enochnation.ca/about/

Ermine, W. (2007). The Ethical Space of Engagement. *Indigenous Law Journal*, *6*(1), 193–204. https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edshol&AN=edshol.hein.journals.ilj6.12&site=eds-live&scope=site

ERVCC, Edmonton River Valley Conservation Coalition. (n.d.). *A Brief History of Edmonton's River Valley and Ravine Park System*. Retrieved June 28, 2021, from https://www.ervcc.com/brief-history-of-nsr

ERVCC, Edmonton River Valley Conservation Coalition. (2021). *Edmonton River Valley Conservation Coalition*. https://www.ervcc.com

Finegan, C. (2018). Reflection, Acknowledgement, and Justice: A framework for Indigenous-Protected Area Reconciliation. *International Indigenous Policy Journal*, *9*(3), 29p. Scopus®. https://doi.org/10.18584/iipj.2018.9.3.3

Fraser, C. M. (2018). Indigenous-Municipal Relations. *Evergreen*, 17.

Gibson, G., & Gould, K. (2020). *Indigenous Conservation Agreements in Canada*. Firelight Group. https://makeway.org/wp-content/uploads/2021/04/Indigenous-Conservation-Agreements-in-Canada.pdf

Gibson MacDonald, G. (2019). *Cultural Investments: Responding to Industrial Impacts*. https://firelight.ca/publications/

Government of Alberta. (2008). *Alberta Land-Use Framework*. https://landuse.alberta.ca/LandUse%20Documents/Land-use%20Framework%20-%202008-12.pdf

Government of Alberta. (2009). *Plan for Parks 2009-2019*. https://open.alberta.ca/publications/9780778557043

Government of Alberta. (2012). *Lower Athabasca Regional Plan 2012-2022*. https://landuse.alberta.ca/LandUse%20Documents/Lower%20Athabasca%20Regional%20Plan%202012-2022%20Approved%202012-08.pdf

Government of Alberta. (2016). *Land-use Framework: North Saskatchewan Region*. https://landuse.alberta.ca/RegionalPlans/NorthSaskatchewanRegion/Pages/default.aspx

Government of Alberta. (2019). *Indigenous Lake Monitoring Program*. https://open.alberta.ca/dataset/71a29cbe-eb13-4c03-9021-3a46bf1087be/resource/64a76c42-0050-4d28-a8e0-e2e5bc296396/download/indigenous-lakes-monitoring-program-fact-sheet.pdf

Government of Alberta. (2021a). *About Us | Alberta Parks*. https://www.albertaparks.ca/albertaparksca/about-us/

Government of Alberta. (2021b). *Big Island Provincial Park | Alberta Parks*. https://www.albertaparks.ca/albertaparksca/news-events/big-island-provincial-park/

Government of Alberta. (2021c). *Indigenous Wisdom Advisory Panel (IWAP)*. https://www.alberta.ca/indigenous-wisdom-advisory-panel.aspx

Government of Alberta. (2021d). *Legislation & Regulations | Alberta Parks*. https://www.albertaparks.ca/albertaparksca/management-land-use/legislation-regulations/

Government of Alberta, A. P. (2018). *Parks System | Alberta Parks*. https://www.albertaparks.ca/albertaparksca/management-land-use/parks-system/

Government of Australia. (n.d.). *Indigenous Protected Areas (IPAs) | National Indigenous Australians Agency*. https://www.niaa.gov.au/indigenous-affairs/environment/indigenous-protected-areas-ipas

Government of Canada. (2018). *From Mikisew Cree First Nation to the Joint Review Panel re: Hearing Submission Filing (Note: Updated September 18, 2018)*. https://www.iaac-aeic.gc.ca/050/evaluations/document/125306?culture=en-CA

Government of Canada. (2020a, December 22). *Indigenous leadership and funding* [Grants and funding opportunities;departmental actions]. https://www.canada.ca/en/environment-climate-change/services/nature-legacy/indigenous-leadership-funding.html

Government of Canada, Environment and Climate Change. (2016, August 5). *Canadian Protected Areas Status Report 2012 to 2015: Chapter 1* [Program results;program descriptions]. https://www.canada.ca/en/environment-climate-change/services/wildlife-habitat/publications/protected-areas-report-2012-2015/chapter-1.html

Government of Canada, Environment and Climate Change. (2020b). *First Nations Guardians Initiative*. https://www.canada.ca/en/environment-climate-change/services/environmental-funding/indigenous-guardians-pilot/first-nations.html

Government of Canada, Environment and Climate Change. (2021). *Canada Target 1 Challenge*. https://www.canada.ca/en/environment-climate-change/services/nature-legacy/canada-target-one-challenge.html

Hawkes, S. (1996). Gwaii Haanas Agreement: From conflict to cooperation. *Environments*, *23*(2), 87–100. Gale OneFile: CPI.Q.

Hsieh, H.-F., & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, *15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Hunt, D. (2016). Nikikiwan: Contesting Settler Colonial Archives through Indigenous Oral History. *Canadian Literature*, *230–231*, 25. Gale Literature Resource Center.

IKWC. (n.d.). *Indigenous Knowledge and Wisdom Centre*. https://www.ikwc.org/

Indigenous Leadership Initiative. (n.d.). *Guardians*. https://www.ilinationhood.ca/guardians

Keepers of the Water. (2021). *Keepers of the Water*. Keepers of the Water. https://www.keepersofthewater.ca/

Kimmerer, R. (2013b). The Fortress, the River and the Garden: A New Metaphor for Cultivating Mutualistic Relationship Between Scientific and Traditional Ecological Knowledge. In A. Kulnieks, D. R. Longboat and K. Young (Eds.), (Ed.), *Contemporary Studies in Environmental and Indigenous Pedagogies: A Curricula of Stories and Place* (p. 49). Rotterdam : SensePublishers; Springer Nature eBooks. https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edssjb&AN=edssjb.978.94.6209.293.8.4&site=eds-live&scope=site

Kimmerer, R. (2013a). *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Milkweed Editions.

King, J. T. (2006). The Value of Water and the Meaning of Water Law for the Native Americans Known as the Haudenosaunee. *Cornell Journal of Law and Public Policy*, *16*(3), 449–472. HeinOnline.

Kwaymullina, A. (2018). You Are on Indigenous Land: Ecofeminism, Indigenous Peoples and Land Justice. In L. Stevens, P. Tait, & D. Varney (Eds.), *Feminist Ecologies: Changing Environments in the Anthropocene* (pp. 193–208). Springer International Publishing. https://doi.org/10.1007/978-3-319-64385-4_11

Lawrence, A., De Vreese, R., Johnston, M., Konijnendijk van den Bosch, C. C., & Sanesi, G. (2013). Urban forest governance: Towards a framework for comparing approaches. *Urban Forestry & Urban Greening*, *12*(4), 464–473. ScienceDirect.

Lewis, P. (2016). Indigenous Methodologies as a Way of Social Transformation: What Does It Mean to Be an Ally? *International Review of Qualitative Research*, *9*(2), 192–194. JSTOR Journals.

MacIsaac, J. (2015). Mikisew push for “in danger” designation to protect park. *Alberta Sweetgrass*, *22*(9), 4–11. Canadian Reference Centre.

McLaughlin, P. (2012). The Second Darwinian Revolution: Steps Toward a New Evolutionary Environmental Sociology. *Nature + Culture*, *7*(3), 231–258. http://dx.doi.org.login.ezproxy.library.ualberta.ca/10.3167/nc.2012.070301

Mikisew Cree First Nation. (2016). *Community Based Monitoring Program Activities and Protocol*. Indigenous Guardians Toolkit. https://www.indigenousguardianstoolkit.ca/community-resource/community-based-monitoring-program-activities-and-protocol-mikisew-cree-first

Mikisew Cree First Nation. (2019). *Community Based Monitoring Newsletter*. http://mikisewgir.com/cbm

Mikisew Cree First Nation. (n.d.). *Kitaskino Nuwenëné Wildland Park*. http://mikisewgir.com/bsa

Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook.* (Fourth edition.). SAGE. https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=cat03710a&AN=alb.8585033&site=eds-live&scope=site

Moore, M. (2020). *Decolonizing park management: A framework for the co-management of national parks and protected areas*. https://summit.sfu.ca/item/19948

MSGC, Métis Settlements General Council. (n.d.). *Métis Settlements IPCA Initiative*. https://www.msgcipca.com/

Murray, G., & King, L. (2012). First Nations Values in Protected Area Governance: Tla-o-qui-aht Tribal Parks and Pacific Rim National Park Reserve. *Human Ecology*, *40*(3), 385–395. AGRIS. https://doi.org/10.1007/s10745-012-9495-2

Narwhal, T. (2020). Canada finally has a plan to protect Wood Buffalo's UNESCO World Heritage Status. Will it be enough? *The Narwhal*. https://thenarwhal.ca/wood-buffalo-national-park-plan/

NCC, Nature Conservancy of Canada. (2017). *North East Alberta Boreal Natural Area Plan 2017-2027*.

NCC, Nature Conservancy of Canada. (2018). *Birch River Media Release*.

NCC, Nature Conservancy of Canada. (2019). *Walking Together to Care for the Land and Water: NCC's Indigenous Conservation Engagement Framework*. https://www.natureconservancy.ca/assets/documents/nat/Walking-Together-NCC-Indigenous-Conservation-Engagement-Framework.pdf

NCC, Nature Conservancy of Canada. (2020a). *Bunchberry Meadows*. Bunchberry Meadows. https://www.natureconservancy.ca/en/where-we-work/alberta/featured-projects/bunchberry/../../index.html

NCC, Nature Conservancy of Canada. (2020b). *Capital Conservation Region*. https://www.natureconservancy.ca/en/where-we-work/alberta/our-work/../../capital-conservation-region.html

NCC, Nature Conservancy of Canada. (2020c). *NCC: Bison management at Old Man on His Back Prairie and Heritage Conservation Area*. https://www.natureconservancy.ca/en/where-we-work/saskatchewan/featured-projects/bison-management-at-old-man.html

NCC, Nature Conservancy of Canada. (2020d). *Our Work*. https://www.natureconservancy.ca/en/where-we-work/alberta/our-work/../../index.html

NCC, Nature Conservancy of Canada. (2020e). *The Conservation Process*. https://www.natureconservancy.ca/en/what-we-do/conservation-process/../../index.html

NCC, Nature Conservancy of Canada. (2020f). *Who We Are*. https://www.natureconservancy.ca/en/who-we-are/../../index.html

NCC, Nature Conservancy of Canada. (2020g). *Working together on the land*. https://www.natureconservancy.ca/en/what-we-do/indigenous-conservation/../../index.html

NS Regional Advisory Council. (2014). *Recommendations Document from the North Saskatchewan Regional Advisory Council*. https://landuse.alberta.ca/RegionalPlans/NorthSaskatchewanRegion/Pages/default.aspx

NSRVCS, North Saskatchewan River Valley Conservation Society. (n.d.). *North Saskatchewan River Valley Conservation Society*. https://www.edmontonrivervalley.org

NSWA, North Saskatchewan Watershed Alliance. (2021). *North Saskatchewan Watershed Alliance*. https://www.nswa.ab.ca/our-watershed/

OECD, Organization for Economic Co-operation and Development. (2020). *Overview of Indigenous governance in Canada: Evolving relations and key issues and debates | Linking Indigenous Communities with Regional Development in Canada | OECD iLibrary*. https://doi.org/10.1787/fa0f60c6-en

Parks Canada. (2018). *We Rise Together: Achieving Pathway to Canada Target 1 through the creation of Indigenous Protected and Conserved Areas in the spirit and practice of reconciliation: the Indigenous circle of experts' report and recommendations.*

Parks Canada Agency. (2017a). *Parks for All*. CPRA-ACPL. https://www.cpra.ca/parks-for-all?locale=en

Parks Canada Agency, Government of Canada. (2018). *Natural Heritage—Wood Buffalo National Park*. https://www.pc.gc.ca/en/pn-np/nt/woodbuffalo/decouvrir-discover/natcul1

Parks Canada Agency, Government of Canada. (2021). *Minister's Round Table 2020 on Parks Canada*. https://www.pc.gc.ca/en/agence-agency/dp-pd/trm-mrt/rapport-2020-report?utm_campaign=pc-pc-ebulletin-20-21&utm_medium=email&utm_source=spring-2021&utm_content=MRTreport-link-en

Parks Canada Agency, Government of Canada. (2017b). *Introduction—Indigenous relations at Parks Canada*. https://www.pc.gc.ca/en/agence-agency/aa-ia/te-wt/introduction

Peterson, L. (2018). *Exploring the Egg Lake /?Eghés tu Landscape and the Lake One Trail A Collaboration with Knowledge Holders in Wood Buffalo National Park*. University of Alberta. Faculty of Native Studies.; UNIV OF ALBERTA LIBRARIES's Institutional Repository. https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ir00008a&AN=uac.2cc47962.01bd.4fcb.a43b.e938c75de149&site=eds-live&scope=site

Plotkin, R., & Firelight Group. (2018). *Tribal Parks and Indigenous Protected and Conserved Areas: Lessons Learned from B.C. Examples*. David Suzuki Foundation. https://davidsuzuki.org/science-learning-centre-article/tribal-parks-and-indigenous-protected-and-conserved-areas-lessons-learned-from-b-c-examples/

Porter, L., & Barry, J. (2016). *Planning for Coexistence?: Recognizing Indigenous Rights Through Land-use Planning in Canada and Australia*. Routledge; eBook Collection (EBSCOhost). https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=1062246&site=eds-live&scope=site

Reed, G., Brunet, N. D., Longboat, S., & Natcher, D. C. (2021). Indigenous guardians as an emerging approach to indigenous environmental governance. *Conservation Biology*, *35*(1), 179–189. https://doi.org/10.1111/cobi.13532

River Valley Alliance. (2018). *Capital Region River Valley Park Action Plan Executive Summary*. https://rivervalley.ab.ca/wp-content/uploads/2018/03/Plan-of-Action-Executive-Summary.pdf

River Valley Alliance. (2021a). *Founding of the RVA*. https://rivervalley.ab.ca/about/history-2/founding/

River Valley Alliance. (2021b). *River Valley Alliance Strategic Plan 2021-2024*. https://rivervalley.ab.ca/wp-content/uploads/2021/02/Strat-Plan-2021-2024.pdf

Simpson, L. (2002). Indigenous Environmental Education for Cultural Survival. *Canadian Journal of Environmental Education*, *7*(1), 13–25. ERIC.

Teck Resources Ltd. (2020). *Working with Indigenous Peoples to Establish the Kitaskino Nuwenëné Wildland Provincial Park*. Teck. https://www.teck.com/news/stories/2020/working-with-indigenous-peoples-to-establish-the-kitaskino-nuwen%C3%ABn%C3%A9-wildland-provincial-park

Thomlinson, E., & Crouch, G. (2012). Aboriginal peoples, Parks Canada, and protected spaces: A case study in co-management at Gwaii Haanas National Park Reserve. *Annals of Leisure Research*, *15*(1), 69–86. https://doi.org/10.1080/11745398.2012.670965

Todd, Z. (2017). Fish, Kin and Hope: Tending to Water Violations in amiskwaciwâskahikan and Treaty Six Territory. *Afterall: A Journal of Art, Context and Enquiry*, *43*, 102–107. https://doi.org/10.1086/692559

Truth and Reconciliation Commission of Canada. (2015). *Honouring the truth, reconciling for the future: Summary of the final report of the Truth and Reconciliation Commission of Canada*.

Vannini, P., & Vannini, A. (2019a). The Exhaustion of Wood Buffalo National Park: Mikisew Cree First Nation Experiences and Perspectives. *International Review of Qualitative Research*, *12*(3), 278–303. https://doi.org/10.1525/irqr.2019.12.3.278

Vannini, P., & Vannini, A. S. (2019b). Wildness as Vitality: A Relational Approach. *Environment & Planning E: Nature & Space*, *2*(2), 252–273. Environment Complete.

Vowel, C. (2016). *Indigenous Writes: A Guide to First Nations, Métis, and Inuit Issues in Canada*. HighWater Press; eBook Academic Collection (EBSCOhost). https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=e000xna&AN=1500964&site=eds-live&scope=site

Watts, V. (2013). *Indigenous Place-Thought and Agency Amongst Humans and Non Humans (First Woman and Sky Woman Go On a European World Tour!)*. *2*(1). OAIster. https://login.ezproxy.library.ualberta.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=edsoai&AN=edsoai.ocn860051130&site=eds-live&scope=site

Youdelis, M. (2016). "They could take you out for coffee and call it consultation!": The colonial antipolitics of Indigenous consultation in Jasper National Park. *Environment and Planning A: Economy and Space*, *48*(7), 1374–1392. https://doi.org/10.1177/0308518X16640530

Youdelis, M., Nakoochee, R., O'Neil, C., Lunstrum, E., & Roth, R. (2020). "Wilderness" revisited: Is Canadian park management moving beyond the "wilderness" ethic? *The Canadian Geographer / Le Géographe Canadien*, *64*(2), 232–249. https://doi.org/10.1111/cag.12600

Zurba, M., Beazley, K. F., English, E., & Buchmann-Duck, J. (2019). Indigenous Protected and Conserved Areas (IPCAs), Aichi Target 11 and Canada's Pathway to Target 1: Focusing Conservation on Reconciliation. *Land*, *8*(1), 10. https://doi.org/10.3390/land8010010

Appendices

Appendix A. Initial Search Terms

This table includes search terms used in the initial search for Indigenous-led conservation work in Alberta.

Search Terms	Search Type	Number & Relevant Results
("first nation*" or indigenous or metis or aboriginal) AND ("indigenous-led" or co-manage* or collaborat* or engage*) AND (Alberta) AND conserv* or "conservation area" or "protected area*" or "wildland park*" or park*)	U of A Library Advanced Article Search	155, Wood Buffalo National Park articles as most relevant. Examples appeared from Yukon and Northwest Territories, as well as examples of co-management.
("first nation*" or indigenous or metis or aboriginal) AND ("indigenous-led" or co-manage* or collaborat* or engage*) AND (Alberta or Edmonton) AND conserv* or "conservation area" or "protected area*" or "wildland park*" or park*)	U of A Library Advanced Article Search	27, most relevant article regarding Ethical Space
("first nation*" or indigenous or metis or aboriginal) AND ("indigenous-led" or co-manage* or collaborat* or engage*) AND (Alberta) AND conserv* or "conservation area" or "protected area*" or "wildland park*" or park*) AND “Indigenous Framework”	U of A Library Advanced Article Search	0
("first nation*" or indigenous or metis or aboriginal AND "indigenous-led" or co-manage* or collaborat*) AND (Alberta) AND (conserv* or "protected area*" or “conservation area” or "wildland park*" or park*)	Google Search Engine	6, Results were CPAWS work, Government of Canada Nature Fund, and work in Northwest Territories

Appendix B. Northern Alberta projects demonstrating collaborative management or Indigenous-led conservation which could have been used as case studies in this paper if more information had been found.

Project Name	Description
Cold Lake First Nation	Indigenous Lake Monitoring Program in partnership with the Government of Alberta (2019)
Métis Settlements General Council	Work being done by the MSGC to develop IPCAs as part of a three year program (MSGC, n.d.)
Keepers of the Water	NGO focused on Indigenous knowledge to speak for the Athabasca Delta (Keepers of the Water, 2021)
Big Island Provincial Park	Beginning stages of partnership between Enoch Cree Nation and Government of Alberta to create a provincial park (Government of Alberta, 2021b)
Indigenous Knowledge and Wisdom Centre	Possible future project in Edmonton's River Valley (IKWC, n.d.)