

Indigenous Knowledge in Environmental Co-management in the Yukon

by

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Abstract

The purpose of this thesis was to investigate the role of Indigenous Knowledge in the context of co-management in the Yukon. The research assessed the extent to which a protected area management plan co-managed by the Yukon Territorial Government, Carcross/Tagish First Nation Government, and the Government of Canada in the Yukon incorporates Indigenous Knowledge. This investigation used a qualitative approach, which involved the comprehensive study of the Tagish River Habitat Protection Area Management Plan and planning process as a case study, analysis of documents pertaining to it, and semi-structured interviews of those involved in the planning process and who are familiar with the plan. The objective of this investigation was to gauge the extent to which participants perceive that Indigenous Knowledge and values are represented within the plan and process that is mandated to include them through the Carcross/Tagish First Nation Final Agreement. The main research question was: To what extent are Indigenous Knowledge and values included in the Tagish River Habitat Protection Area management plan and planning process? This research built on previously identified findings in the literature that demonstrate the value of Indigenous Knowledge and values in co-management. This research sought to determine how Indigenous Knowledge and values are in fact represented within the management plan compared to the intentions of the developers of the plan. Findings include the fact that all participants perceived that the plan will include various aspects of Indigenous Knowledge and values, particularly more so than do other existing HPA plans within the Yukon. There are many hopeful feelings that this HPA will represent a good example moving forward for appropriate co-management regimes in the future, though the application of these aspects will be dependent on the implementation of them.

Table of Contents

Abstract	5
List of Acronyms	12
Introduction	12
Background	18
Carcross/Tagish First Nation.....	24
The Tagish Area.....	25
Tagish River Habitat Protection Area.....	27
Justification.....	31
Literature Review.....	32
Indigenous Knowledge and values.....	32
Indigenous Knowledge and values in management.....	38
Co-management regimes.....	40
Co-management regimes and Indigenous Knowledge and values.....	43
Potential limitations in co-management.....	45
Nadasdy's example of hunting.....	50
Definitions.....	55
Methodology	58
Research Question and Objectives.....	58
Sub-questions.....	58

Methods.....	59
Data Collection.....	59
Participant Selection.....	62
Interview Locations.....	64
Results and Discussion.....	65
What is Indigenous Knowledge?.....	66
Discussion.....	72
To what extent do interviewees think Indigenous Knowledge and values are included in this co-management plan?.....	74
Discussion.....	82
What aspects of Indigenous Knowledge do interviewees believe are included?.....	82
Discussion.....	91
What are/were interviewees hopes and intentions for including Indigenous Knowledge in this management plan?.....	92
Discussion.....	96
Are interviewees satisfied with the extent to which Indigenous Knowledge and values are included in this co-management plan?.....	96
Discussion.....	102

What do interviewees consider to be the role of Indigenous Knowledge and values in this co-management plan and/or co-management plans in general?.....	104
Discussion.....	109
Other insights	110
Conclusions and Recommendations	115
Sub-questions	116
To what extent do stakeholders perceive Indigenous Knowledge and values to be included in this co-management plan?	116
How are Indigenous Knowledge and values included in this co-management plan? What aspects are included?	116
What are stakeholders' hopes and intentions for including Indigenous Knowledge and values in this co-management plan?	117
Are stakeholders satisfied with the extent to which Indigenous Knowledge and values are included in this co-management plans? Why or why not?	117
Recommendations	118
References	131
Appendices	142
Appendix A: Carcross/Tagish First Nation Final Agreement. Chapter 10: Special Management Areas – Schedule C Tagish River Habitat Protection Area	142
Appendix B: Carcross/Tagish First Nation Elders Statement.....	154

Appendix C: Interview Questions156

Appendix D: Informed Consent Form158

List of Figures

Figure 1: Yukon First Nation Languages Map.....26

Figure 2: Tagish River Habitat Protection Area Map30

List of Tables

Table 1: Timeline of Tagish River HPA Planning Process.....29

List of Acronyms

HPA – Habitat Protection Area

C/TFN – Carcross/Tagish First Nation

TRHSC – Tagish River Habitat Protection Area Steering Committee

Introduction

“We now demand the right to plan for our future” (Council for Yukon Indians, 1973, p.24).

This thesis investigated the role of Indigenous Knowledge and values in co-managed protected area management plans in the Yukon. There are currently several protected area regimes within the Yukon Territory that are mandated to be co-managed between the Territorial Government and First Nation Governments, and in some cases the Federal Government. These plans are intended to include First Nation government appointees to represent Indigenous Knowledge and values (Canada, Council for Yukon Indians & Yukon Territory, 1993). The majority of these plans are mandated to be created through different Yukon First Nation Final and Self-Government Agreements. This research aimed to determine whether or not Indigenous Knowledge and values are in fact being represented within the plan, and how, as well as how participants in the planning process, stakeholders affected by the plan, and interested parties perceive and evaluate that representation and how they would like to see Indigenous Knowledge represented in co-management plans and activities in the future. The objective of this thesis was to investigate the inclusion of Indigenous Knowledge in co-management in the Yukon with specific reference to the Tagish River Habitat Protection Area (HPA) Management Plan. This involved a qualitative study that utilized the Tagish River Habitat HPA as a case study through

semi-structured interviews with participants in the planning process and document analysis. The research question was, “To what extent are Indigenous Knowledge and values included in the Tagish River Habitat Protection Area management plan and planning process?”

I started this research as a result of my involvement in portions of one particular protected area management plan in the Yukon: The Tagish River Habitat Protection Area (HPA) Management Plan. In previous work, I was involved as a planner in portions of the planning process working with the Steering Committee for the Tagish River Habitat Protection Area (TRHSC), though was not in the position for the conclusion of the plan. My involvement in the plan assisted in this research to the extent that I already have established working relationships with the those previously and currently involved in the planning process. This plan was mandated through the Carcross/Tagish First Nation (C/TFN) Final Agreement. I am currently employed by White River First Nation, so I have both a professional and personal interest in how the knowledge and values of First Nations are reflected in management plans. Being an employee of this First Nation does not create any particular biases within this research, as this research aims to investigate a management plan in which another First Nation Government is a party to, and which stands to benefit all governments within the Yukon.

Indigenous Knowledge and values have been shown to have qualities that make sustainable development more effective, such as including environmental, economic, and social considerations as connected parts of a whole (Davidson-Hunt & Berkes, 2003, p. 6). Taking a holistic, combined approach to sustainable development is more effective than using one knowledge system in isolation (Cochran et al. 2013, p. 559). Dale (2001) notes that moving away from exclusively working within the paradigm of Western ideology will create an environment

that is more conducive to sustainability (p. 16). Wavey (1993) discusses the fact that since the time of contact by Columbus, the Western scientific knowledge system based on which we have managed the environment and natural resources has resulted in environmental catastrophe. This indicates the need to opening that knowledge system to include other ways of knowing such as those of Indigenous peoples (p. 12). When discussing one of the creation stories on how Algonquin-Anishinaabe people came to know certain concepts such as reconciliation, Gehl (2018) states, “While many people think this Nanaboozo story is a romantic belief that lacks rationality, it is much more. Sacred beliefs that value the natural world are far more sustainable and intelligent than the destruction that manifests through the current economic paradigm, resulting in the polluting of our land and waterways with such things as plastic, sewage, chemicals, and radioactive particles” (para.1). This idea presented by Gehl demonstrates how aspects of Indigenous Knowledge indeed lend themselves better to a sustainable future than does the Western scientific paradigm alone.

Berkes and Palmer (2015) identify the fact that in the past in Canada, common resources have typically been managed by the federal and/or provincial/territorial governments, which manages through a top-down centralized structure, treating natural resources as federal and/or provincial/territorial government property. They give examples, such as the collapse of the Newfoundland cod industry, of why this approach is not effective in managing natural resources in a sustainable manner. They also present the popular idea of the privatization or commodification of natural resources to allow market forces to manage them. They suggest reasons why this model also is not effective in managing natural resources in a sustainable manner, as many of these resources are not conducive to being owned privately. They present a

more effective alternative management style, the community management approach, which includes collective decision-making at a local level. They discuss how this management style has been more effective in managing natural resources in a sustainable manner, particularly for First Nation land and resource use in Canada. There is an acknowledgement that, for the community management style to be effective, there must be trust, effective communication, and equal reciprocity. It is also recognized that there are no set parameters for managing in this style, but that they must be considered on a case-by-case basis. It is also recognized that, for the community management style to be successful, there must be support from the other typical management styles, *i.e.* government regulations and market controls (Berkes & Palmer, 2015, p. 67-68).

Investigating co-management plans to determine if and how Indigenous Knowledge and values are represented will contribute to the sustainability of the plans themselves, as well as the protected areas in which they manage, as it will demonstrate whether or not these values pertaining to sustainability are reflected. Booth and Skelton (2001) note that for sustainable development to be embraced by society, governments need to play a particular leading role, such as they do within these protected area management plans. Within the preface of Inglis' book (1993), he describes the outcomes of the United Nations Conference on Environment and Development, held in 1992 in Rio de Janeiro. He explains how Indigenous Knowledge was emphasized as an important tool in adequate sustainable development. When describing the actions coming out of the conference, he states, "Critical to the successful implementation of Agenda 21 is the recognition of the contribution of indigenous peoples and their knowledge to the quest for a sustainable future" (Inglis, 1993, p. vi). Inglis (1993) also highlights the fact that

there were several other similar conferences held in Canada in the early 1990's, such as the International Workshop on Indigenous Knowledge and Community Based Resource Management, that emphasized the importance of using Indigenous Knowledge in planning and decision-making, to be able to promote more sustainable development. One of several goals of the International Workshop on Indigenous Knowledge and Community Based Resource Management, as explained by Inglis is, "to ensure that both traditional ecological knowledge and western-based science are employed in a complementary manner in planning and decision-making" (Inglis, 1993, p. vii). This demonstrates the importance of the premise that Indigenous Knowledge can better lend itself to sustainable development, and that a major means to accomplish this integration is co-management. Many scholars have suggested that in order to include Indigenous Knowledge in decision-making, leading to more sustainable development, co-management is a more effective governance mechanism than is top-down decision-making using only one knowledge system (Osherenko, 1988, p.7) (Berkes, George, & Preston, 1991, p.2). Many scholars have concluded that co-management can be an effective way to ensure that Indigenous Knowledge and values are included in environmental decision-making to promote more sustainable development and environmental management practices, even if it may not be the perfect solution to all environmental issues (Osherenko, 1988: p.7) (Berkes et al, 1991: p. 5-6).

As part of the preamble of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (2008), it is stated, "respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment" (United Nations, 2008, p. 2). This Declaration has been

accepted by the Government of Canada, and a promise was made that its articles will be respected and implemented through Canadian policy. While it remains to be seen if this will occur in practice, this is a direction the Government of Canada has officially endorsed. Article of UNDRIP 13.1 states, “Indigenous peoples have the right to revitalize, use, develop and transmit to future generations their histories, languages, oral traditions, philosophies, writing systems and literatures, and to designate and retain their own names for communities, places and persons” (United Nations, 2008, p. 7). Article 18 states, “Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions” (United Nations, 2008, p. 8). This Article provides the basis for an adequate co-management structure, where First Nations are equal decision-makers in resources that are shared. Article 31 states, “Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures” (United Nations, 2008, p. 11). While these articles may represent the ideal situation for Indigenous people which does not always occur in practice, the Government of Canada has officially endorsed and committed to implementing them, demonstrating the importance put on Indigenous Knowledge both for Indigenous peoples and communities, as well as for the contribution of Indigenous Knowledge to sustainability. The Articles of UNDRIP emphasize the importance of a properly designed co-management structure to include aspects of Indigenous Knowledge into the greater paradigm of environmental management, through emphasis on utilizing Indigenous Knowledge and ways of knowing in decision-making.

Investigating the perceptions of stakeholders involved in and/or affected by the Tagish River Habitat Protection Area management plan will inform recommendations for other planning processes that adhere to similar co-management mandates, aiding to fulfill the mandates presented through the United Nations Declaration of the Rights of Indigenous Peoples.

Berkes (1993) describes the study of Indigenous Knowledge as being one that has occurred for many decades, starting with early anthropologists, such as Hardisty, Conklin, Pruitt, and Posey among other (Berkes, 1993, p. 1-2). This point is made in reference to the fact that the study of Indigenous Knowledge by formal Western researchers is not a new phenomenon. He suggests that many researchers have concluded over the years that Indigenous Knowledge is valid and useful for environmental decision-making. (Berkes, 1993, p. 1-2). This research is based upon such findings and the need to incorporate Indigenous Knowledge into management plans in the Yukon to ensure effective management of resources. I will present discussions below on the ways in which Indigenous Knowledge lends itself to more effective environmental management practices than does the Western scientific paradigm and knowledge alone.

Background

For the purposes of this research, I will not be providing an in-depth discussion on the events that brought about the Yukon land claims process, as this is a complicated discussion rooted in many aspects of Canada's colonial history, such as the Yukon Gold Rush (Cruikshank, 1990: p. 2), the construction of the Alaska Highway (Cruikshank, 1990, p. 2), Residential Schools (Cruikshank, 1990, p. 2), etc. However, I will be presenting perceptions gathered from documentation of the initial stages of the land claims process to demonstrate the importance put on the agreements and the reasoning behind initiating them through co-management. A glimpse

into the initial stages of the Yukon land claims process and the perceptions during the times surrounding it, which eventually led to the signing of 11 First Nation Final and Self-Government Agreements, can be seen using the document “*Together Today for our Children Tomorrow: A Statement of Grievances and an Approach to Settlement by the Yukon Indian People*” (Council for Yukon Indians, 1973). The land claims process started in the Yukon with the formation of the Council of Yukon Indians, and the presentation of this document by a delegation of Yukon First Nation leaders led by Chief Elijah Smith to Prime Minister Pierre Trudeau in 1973. This was a comprehensive document that laid out certain grievances and principles that initiated the treaty process. The document is communicated in a fashion that presents and recognizes the past historical injustices to which Yukon First Nation people were subjected in order to provide context for the grievances. It then presents conditions to the date of its publication and ways forward in which to prosper harmoniously with non-Indigenous people in the Yukon (Council for Yukon Indians, 1973). This document, in a sense, sets out the basic framework of co-management. It recognizes that there is a need to better manage resources together, that past and current injustices have and continue to affect First Nation people and thus Indigenous Knowledge, but seeks to embrace both Indigenous and non-Indigenous systems to create a sustainable future. Part of the history presented in the document explains how different stages of colonialism affected Yukon First Nations. The last such wave identified is that of large industrial development, *i.e.* oil and gas and mining. It is recognized that these large developments, with specific mines given as examples, alienated Yukon First Nation people from their own lands and resources without involving them in the decision-making or economic benefit (Council for Yukon Indians, 1973, p. 12). This again identifies and demonstrates the value of a co-

management regime relating to environmental matters as a means of ensuring that Yukon First Nations are involved in decision-making.

In *“Together Today for Our Children Tomorrow”* (1973), land is presented as the cornerstone of Yukon First Nation culture that must be preserved and respected. This respect transcends the strictly physical idea of land in that the land represents the place in which Indigenous Knowledge, values, culture, traditions, and more are derived (Council for Yukon Indians, 1973). There are multiple examples throughout the document where the emphasis on land is made. At the beginning of the document, it is stated, “As times changed for the Indian people, our leaders began to realize that if we were to survive as a unique people, we must have our rights to the land” (Council for Yukon Indians, 1973, p.6). The discussions of land-related issues throughout the document are not oriented towards giving First Nations sole control and access to all lands. The idea conveyed is a shared-decision making process. In the document, it is noted, “We learned how to practice what is now called multiple land use, conservation, and resource management. We have much to teach the Whiteman about these things when he is ready to listen.” (Council for Yukon Indians, 1973, p.9). This statement demonstrates the need for a co-management system, in that the Indigenous practice and ways of knowing have had experience with managing the land and environment since “time immemorial”, and there was a willingness to share this knowledge with non-Indigenous people of the Yukon to sustainably manage the land together (Council for Yukon Indians, 1973, p. 9).

Utilizing both the Western and Indigenous knowledge systems to manage together is highlighted through the document. The document mentions “Solutions to Indian problems must be found within the framework of our culture”. (Council for Yukon Indians, 1973, p.16). Yukon

First Nations wanted their culture to play an active role in decision-making when it was only Western culture that dominated that role at the time of the document's publication. The document also discusses how Yukon First Nation people need to be heard and respected in the greater framework of decision-making and management. The document notes,

We listen to Whitemen from the time we get up til we go to bed. Most of this is one-way communication. It is Whitemen talk – Indian listen – we listen to radio, teachers, politicians, clerks in stores, television, music, salesmen, etc. They are all salesmen, trying to sell the Whitemen's way. We don't have a chance to think, let alone a chance to answer. (Council for Yukon Indians, 1973, p.16).

It goes on to state, "With a settlement of our claims we feel we can participate as equals, and then we will be able to live together as neighbours." (Council for Yukon Indians, 1973, p.16). This again reinforces the idea that at the time Yukon First Nations needed equal avenues to participate in decision-making processes that shape their lives. This goal to be part of decision-making also is demonstrated in the document, "There must be a system set up where the Indian people have some control over the programs that affect us. This control must not be just in the Administration of the program – but in the planning" (Council for Yukon Indians, 1973, p.18). This statement shows willingness to take a shared decision-making role in program administration. The recognition that combining the two knowledge systems to create a more effective way to manage and move forward is highlighted as well. It is stated in the document, "We need research to show us the best way to take advantage of the good parts of the Whiteman Way, while at the same time keeping the best parts of our Indian Way" (Council for Yukon Indians, 1973, p. 23). There is a continued emphasis in the document regarding giving

Indigenous people an equal role in decision-making regarding administration of lands and natural resources. Examples are given where land rights are assigned to third party interests without any consultation with First Nations and Indigenous people, and that this needs to change (Council for Yukon Indians, 1973, p. 22). The emphasis is not put on keeping lands for the present generation, but for future generations of children who will also need decision-making power over those lands.

What is not seen in the document is a push to divide the peoples and knowledge systems further, but to integrate them to give better representation to all Yukon residents. This sentiment is captured in the document: “If we are successful [at finalizing land claims], the day will come when ALL Yukoners, will be proud of our Heritage and Culture, and will respect our Indian Identity. Only then will we be equal Canadian Brothers.” (Council for Yukon Indians, 1973, p.17). Now that these agreements have been completed, it is in the implementation that this equality will persist. An effective co-management framework in which there is a fair partnership in decision-making between First Nations and the territorial and/or federal government can be an important aspect of this.

The authors of “*Together Today for Our Children Tomorrow*” (Council for Yukon Indians, 1973) stress the fact that decision-making must be based on community values, knowledge, and opinions. The document states:

It is the people of the Indian villages that will make this Settlement work. All our views, we have gotten from them. The benefits of this Settlement must go to them. Our plan is to assist as a co-ordinator. We will not become a Yukon Indian Affairs. We will not plan programs for the

villages. We will only help the people organize themselves so they can plan and operate their OWN programs. (Council for Yukon Indians, 1973, p.17).

This is the essence of the co-management or community management structure; the fact that an outside agency would not be managing natural resources and the environment from a removed place, but that decision-making comes from the community (Roburn, 2012, p. 440).

Roburn (2012) argues that gaining the insights, perceptions, and values of local and Indigenous people of a community are very valuable to those working in environmental planning, as they give the perspective of what the community would like to see done into the future. She states, "In self-government and land-claim negotiations, Yukon First Nations fought for and obtained guarantees that traditional knowledge would be considered in decision making on land and resource issues and that First Nations would be consulted on such decisions" (Roburn, 2012, p. 445). These arguments brought up throughout "*Together Today for Our Children Tomorrow*" and from Roburn lend themselves to the co-management structure that has been achieved through the negotiating and settling of many of the Yukon First Nation Final and Self-Government Agreements.

Berkes (2009) argues that some resources are too complex to manage in a singular manner; one such resource being protected areas. He notes how this management must include multiple parties outside of just government, and that co-management is a potential tool to do this, though he also makes the point that co-management must be adaptive, in much the same way that resource management must be adaptive, in that it includes the aspect of "learning-by-doing" (p. 1693). Pushing for adaptive co-management, as Berkes (2009), suggests, encourages an Indigenous value in itself: learning-by-doing. The concept of learning-by-doing, through

adaptive co-management, is what will lead to the generation and use of knowledge within that co-management system, leading to better chances of success for that system, argues Berkes (2009, p. 1699).

Carcross/Tagish First Nation

As I come from a different Indigenous Nation, I do not claim to speak on the behalf of Carcross/Tagish First Nation in explaining who they are as a people and Nation. Below I present a high-level overview adapted from the C/TFN Government itself as part of background about the First Nation.

The Carcross/Tagish First Nation is made up of what are now known as Inland Tlingit and Tagish peoples, speaking the Tlingit and Tagish languages. There are approximately 698 members of C/TFN registered with Indigenous and Northern Affairs Canada (Indigenous and Northern Affairs Canada, 2018), though this number could be larger in terms of recognized members as C/TFN has its own membership rules. The Traditional Territory of C/TFN encompasses a large area in what is now referred to as South-Central Yukon, generally in the Southern Lakes region. The Traditional Territory encompasses the communities of Carcross and Tagish, Yukon. Figure 1 below shows a map of the Tagish and Tlingit speaking areas of the Yukon. While there is a complex history to the formation of the Carcross/Tagish First Nation, it is generally accepted that the First Nation is made up of six clans that form the governing structure: Daklaweidi, Yan Yedi, Deisheetaan, Kookhittaaan, Ganaxtedi, and Ishkahittaaan. These clans are split between the Wolf and Crow moieties (Carcross/Tagish First Nation, n.d., para. 2-3). Cruikshank (1990) explains through her work with Tagish and Tlingit Elders how the two languages are in fact quite different, as the Tagish language is rooted in the Dene culture more

typical of the rest of the inland Yukon, whereas the roots of the Tlingit language are more typical of that of coastal regions, though there has been a long history of interaction between the language groups (p. xiii). The Tagish language is referred sometimes, and by Cruikshank (1990), as being part of the Athapaskan linguistic family, whereas I have been instructed to refer to the language family as Dene, as the term Athapaskan is rooted in colonial history (G. Low, personal communication, June 14, 2018). C/TFN has negotiated a treaty with the Government of Canada and Government of Yukon, and signed its Final and Self-Government Agreements in October of 2005 (Indigenous and Northern Affairs Canada, 2017).

The Tagish Area

Tagish, Yukon is a small unincorporated rural community located in the Southern Lakes region of south-central Yukon. It is approximately 100 kilometers southeast of Whitehorse, Yukon. Tagish is a combination of permanent residents, seasonal residents with cabins, recreational users, as well as tourists (Tagish Community Association, 2017). The community of Tagish is represented by the Tagish Advisory Council, made up of five elected members from the community and one appointed member from C/TFN, which provides advice to the Yukon Minister of Community Services in regards to issues brought up in the community (Tagish Community Association, 2017). There is also a Tagish Community Association run mainly by volunteers in the community, who provide services to local residents such as health, social, educational, and sport services (Tagish Community Association, 2017). Figure 1 below shows the wider Yukon Territory with the Tagish area highlighted by the red circle.



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Figure 1: Yukon First Nation Languages Map (Government of Yukon, 2015, with permission)

Tagish River Habitat Protection Area

The Tagish River Habitat Protection Area is contained within the Carcross/Tagish First Nation Final Agreement. Chapter 10: Special Management Areas – Schedule C of the C/TFN Final Agreement lays out the goals of the Tagish River HPA, the establishment process, the Steering Committee and its duties, the general provisions for the management plan itself, as well as certain definitions and exclusions from the management plan. Schedule C can be found below in Appendix A. In general, the objectives of the Tagish River HPA include protecting fish and wildlife and their habitat for the benefit of all people, the recognition of C/TFN's traditional use as well as current use of the area by all people, to protect fish and wildlife and their habitat from activities that can reduce the diversity and functions of these species, to create a recognition of the culture and heritage of C/TFN of the area both historically and currently, to recognize that this is a multi-use area with several interests and activities being conducted, to increase public awareness of the importance of the value of the fish and wildlife and other natural resources of the area, and to encourage economic benefits for C/TFN in the area (Canada, Carcross/Tagish First Nation, & Yukon Government, 2004, p. 138–139). As can be seen through the provision creating the Tagish River Habitat Protection Area in C/TFN's Final Agreement, the approach is much more holistic than simply taking a conservation stance, but encompasses each of the three pillars of sustainability presented by Dale (2001, p. 4): environmental, economic, and social. It also recognizes the area as being used by many different interest groups currently and not seeking to remove those interests, but grounds the area in the history of C/TFN and seeks to create additional opportunities for the Indigenous people of this area.

The Tagish River HPA management plan is the first of its kind in the Yukon, as it is my understanding that it is the only HPA encompassing an area in which people live permanently. This is important as it represents a case study that involves an area that is not isolated and cannot be treated as an area untouched by colonialism, which is how Western scientists have tended to look at Indigenous Knowledge in the past (Butler, 2006, p. 109). The plan represents an example of how co-management can exist in a space where Indigenous people and non-Indigenous people have lived together and in close proximity to each other for a century, showing how the Indigenous Knowledge of the area would have adapted and changed over that time period leading to the necessity of reconciling both the Indigenous and non-Indigenous worldviews in the Tagish area. This is not to say that full reconciliation has occurred to date, but through my previous experience in dealing with the Tagish River HPA, there was certainly a willingness and recognition that Indigenous and non-Indigenous people must come together in the Tagish area. A map of the Tagish River HPA is included as Figure 2 below. At the completion of this research, the Tagish River HPA plan had not yet been completed, though it is my understanding that a draft is being released for public review very soon.

Date	Action
October 2005	C/TFN Final and Self-Government Agreements signed
April 2015	Establishment of the TRHSC (Tagish River Habitat Protection Area Steering Committee, n.d.)
April 27 th , 2015	First TRHSC meeting (Tagish River Habitat Protection Area Steering Committee, 2015)
April 2017	Proposed date for completion of the management plan, as per Schedule C of the C/TFN Final Agreement
September 15 th , 2018	Time of research complete, management plan in finalized draft form, not publicly released

Table 2: Timeline of Tagish River HPA Planning Process

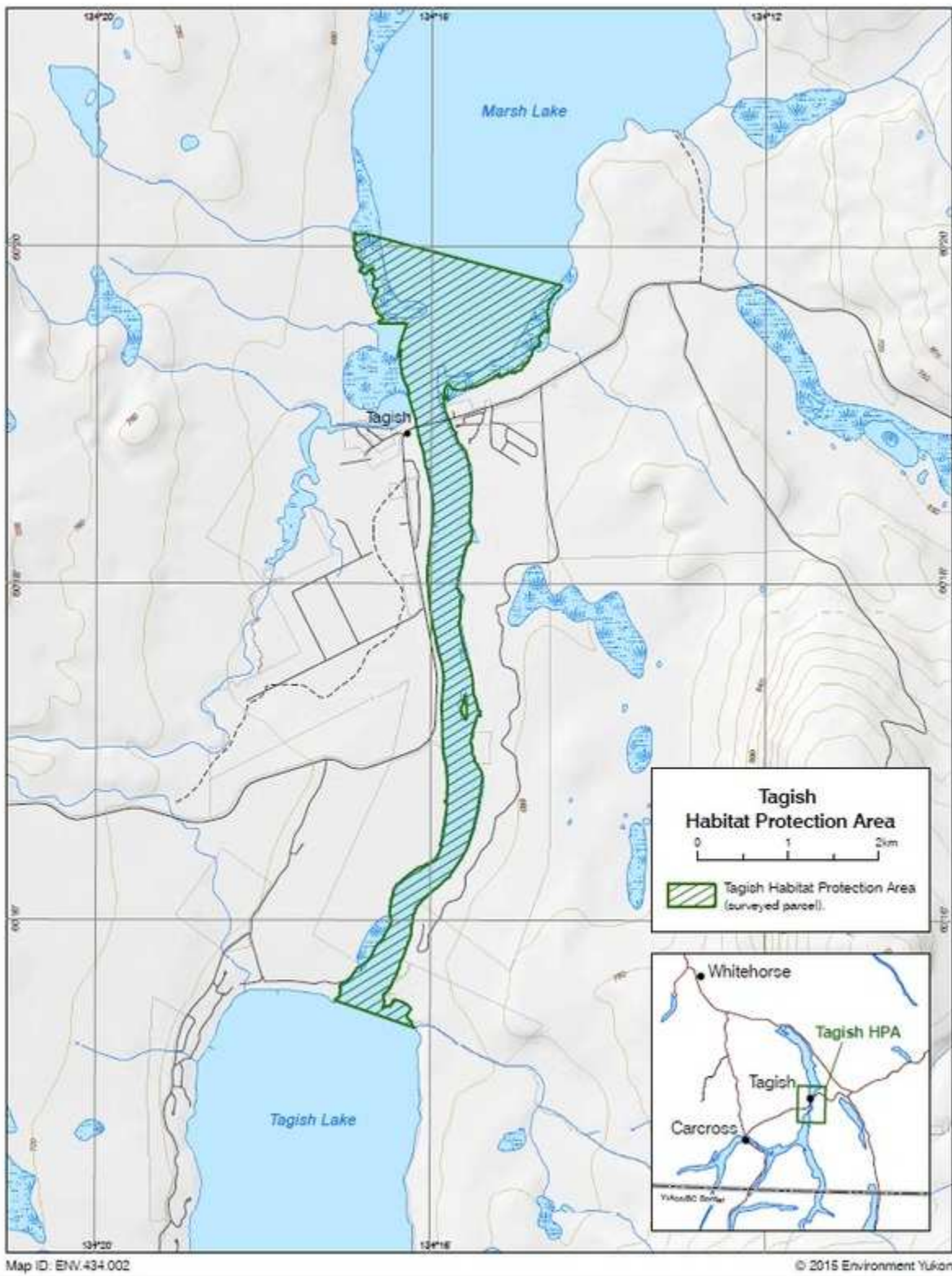


Figure 2: Tagish River Habitat Protection Area Map (Government of Yukon, n.d., with permission)

Justification

This research will contribute to the field of Indigenous Knowledge and co-management, as well as Western science in general, as it investigates a plan which is mandated to represent Indigenous Knowledge and values. This will be of value to planners, policy and decision-makers of both Territorial/Federal and First Nation Governments, as well as those involved in studying Indigenous Knowledge within academia, as it demonstrates whether the knowledge that is proven to contribute to Western science is in fact being utilized in practice. The recommendations made as a result of this research will inform those above-mentioned organizations in similar future planning processes.

This previous research within the field of Indigenous Knowledge is significant to my research, as my research acts as an extension of the previously conducted research. My research is an investigation of whether Indigenous Knowledge and values are in fact being represented in environmental co-management plans, as well as how. This relies on theoretical perspectives drawn from previous research demonstrating that Indigenous Knowledge can contribute to and is effective within co-management plans. The literature introduces theoretical perspectives on which my research is based; demonstrating how Indigenous Knowledge and values are effective in co-management and that they are supposed to be implemented within the planning regimes. Spak (2005) demonstrates the fact that much research has been conducted regarding the effectiveness of Indigenous Knowledge, but is lacking specifically on whether Indigenous Knowledge is actually represented and how it is represented in co-management regimes (p. 233). The objectives of my research aim to address those concerns and fill this identified gap, in that

the research investigates whether Indigenous Knowledge and values are represented within a specific co-management plan within a Yukon protected area context.

Literature Review

This section reviews literature relevant to 1) Indigenous Knowledge and values; and 2) Co-management regimes. While this is done in separate sections for the sake of clarity, the concepts are intrinsically related, in that the concepts behind Indigenous Knowledge inform the concept of co-management if Indigenous Knowledge is adequately represented within a co-management regime. These sections discuss the literature regarding Indigenous Knowledge and values in an attempt to demonstrate how scholars in the field represent Indigenous Knowledge and values. While there is not one universally-held definition of Indigenous Knowledge, there is extensive discussion of its meaning throughout the literature.

Indigenous Knowledge and values

In his work on Yukon First Nation and non-First Nation relations, Coates (1984) makes the point that though there were many changes in lifestyle, including socially, economically, and environmentally, at the time of contact of non-Indigenous people with Yukon First Nations, Yukon First Nation beliefs, knowledge, and ways of knowing generally remained constant throughout the years (p. 1-2). He notes that non-Indigenous peoples moved in for the Gold Rush, very rapidly changed their lifestyles and adapted to their new surroundings and climate, but then generally left shortly after, allowing for Yukon First Nations to continue their belief systems as well as traditional practices (p. 1-2). This constancy demonstrates the resiliency of Indigenous Knowledge, traditions, culture, and values, because even though there were major changes occurring in the territory around them, Coates (1984) argues that these aspects of life remained

relatively constant (p. 1-2). This is not to say that these aspects did not shift, but that the values behind the practices are adaptable to new surroundings to remain constant. He discusses the fact that harvesting of natural resources, such as through hunting, fishing, and trapping, is an integral part of all aspects of Indigenous life in the Yukon, shaping the patterns of traditions, values, and practices (Coates, 1984, p. 12). Coates demonstrates how these values remain constant even with the technological advances in aspects of some of these activities (*i.e.* outboard motors and others). He argues that instead of abandoning traditional harvesting practices and values for full integration into the wage economy, Indigenous people in the Yukon melded the two, in that they participated in the wage economy to the extent that it continued to allow them to prescribe to the traditional values of harvesting in a technologically advancing territory (p. 12).

Gehl (2017) offers some insight into the differences between Indigenous Knowledge and Western Scientific Knowledge to be able to identify unique aspects of Indigenous Knowledge. Under an Indigenous framework, Gehl (2017) argues that truth and knowledge come from the self (p. 12). This contrasts the idea of Western Scientific Knowledge where knowledge is objective and outside the self. She goes on to discuss the fact that Indigenous ways of knowing are rooted in naturalistic traditions where Western Scientific Knowledge is rooted more within a humanistic tradition. Subsequently, universities and colleges are developed from this humanistic type of knowledge, argues Gehl (2017, p. 33). Gehl (2017) also offers aspects of knowledge specific to an Indigenous worldview. She discusses how Indigenous Knowledge encompasses more than just what is in the mind or consciousness, but takes a more holistic approach and includes the body, heart and spirit (2017, p. 33). She continues to discuss the aspects unique to Indigenous Knowledge, such as having a gender balance, a recognition of values, a reliance on

oral communication and memory, the relational nature of knowledge, embracing subjectivity, and involving story telling from an individualistic perspective rather than seeking an objective truth (2017, p. 33). Gehl (2017) also discusses how Indigenous Knowledge is gained through observation, learned experience, embracing subjectivity, and from certain knowledge holders. This knowledge is contingent on a specific place or landscape (2017, p. 34-35). She notes how people have a relationship with knowledge because gaining it is an embodied process, gaining the knowledge is land-based and community-driven. In this context, knowledge is derived from being a part of a holistic framework, not gained from a particular outside entity (2017, p. 34). When discussing specific activities through which to express Indigenous Knowledge, Gehl (2017) notes how the aspects of Indigenous Knowledge such as practiced knowledge and heart knowledge are embodied through ritual such as song and prayer (p. 35-36).

Activities such as song, prayer, and other forms of story-telling are also described by Cruikshank (1990). In her 1990 book *“Life Lived Like a Story”*, she notes that the Elders who narrate the book use stories, songs, and names of people and places as ways to express their Indigenous Knowledge. These stories and songs emphasize connections or relationships to the land, to other beings, to other people, in how these Elders position themselves and their knowledge in a greater societal context, they establish what Cruikshank (1990) refers to as a “sense of place” (p.3). Cruikshank (1990) brings up several aspects of Indigenous culture, including moieties, clans, crests, and activities such as potlatches being integral to the culture of Tagish and Tlingit Nations (p. 9). These all make up mechanisms to express the values behind notions of Indigenous Knowledge, such as relationships, respect, and reciprocity. A recurring theme in Cruikshank’s (1990) book is the importance of Elders in the transmission of Indigenous

Knowledge and cultural values to younger people. Elders performed this knowledge transmission through oral tradition as well as demonstrated experience (Cruikshank, 1990).

Cruikshank's (1990) book is based on the observation that Indigenous Knowledge is rooted in the oral tradition, particularly that of storytelling. She argues that the process of storytelling allows for the values being communicated through the stories to persist through time and adapt to environmental, social, and economic change. These stories are rooted both in a locally generally accepted terminology as well as a shared body of knowledge (1990, p. 2). Cruikshank (1990) argues that these stories are not simply just descriptions of the past, but also represent ways of rationalizing the present and future events in a context that is rooted in cultural values (p. 2-3).

In addition to the activity of story-telling, Cruikshank (1990) also supports the points made above regarding Indigenous Knowledge being place-based and contextual. Cruikshank (1990) argues that the use of traditional/original place names represents an aspect of Indigenous Knowledge, as they do not just represent the name of a place in history, but embody the knowledge and relationship that humans have to that specific place. The place names themselves hold that knowledge within them, and to make use of them is an expression of Indigenous Knowledge (p. 32). She presents an example where Tagish/Tlingit Elder Mrs. Angela Sidney could not always remember the names of places until she went back to those places to see the physical attributes on the land. Even though she had not visited these places in forty or fifty years, and they had changed significantly over that time, or that she may have not even been there before, she was still able to remember the name of the place, why the place held that name,

as well as what activities took place there and for what purpose. This process took place through attributing songs, stories, and ceremonies to these places (Cruikshank, 1990, p. 25).

In Part One of Cruikshank's (1990) book, she presents examples of the above-stated points, regarding the fact that Indigenous Knowledge is not static or frozen in time to a particular point in history. A recurring theme through this section of Cruikshank's (1990) book that chronicles the life of Tagish/Tlingit Elder Mrs. Angela Sidney is that of balance between traditional ways and new ways. This goes to the heart of the fact that Indigenous Knowledge is dynamic, evolving, and continually changing and shifting. Examples from Mrs. Sidney's accounts include the fact that she would combine traditional practices with newer ways of thinking, embracing both her Indigenous spirituality as well as Christian religious traditions, speaking her traditional Indigenous languages but also making efforts to learn English, attempting to understand both her Indigenous ways of governing as well as that of the greater Canadian governmental system (p. 31). This supports the point made that Indigenous Knowledge is resilient and continuously evolving.

Through the stories in which Angela Sidney tells in Cruikshank's (1990) book, she emphasizes certain songs, stories, names of previously passed ancestors, etc., to be able to ground herself and her own experience in this collective. She places her own self in a time and place that has been and continually is shaped by those phenomena. This tying in together of all these phenomena shows the value of collectiveness rather than individuality in society (p. 30). It shows the inclusiveness of all things that effect the person rather than exclusively allowing that individual to develop outside of those influential factors. This value is also demonstrated through marriage, where it becomes a concept of bonding clans, and holding up the responsibilities that

come with those clans, rather than just the simplified view of a bonding between two individuals (p. 30). The potlatch is also the quintessential example of the public activity of strengthening ties between groups of people. While the action is that of the potlatch and the specific exercises in which are a part of it, such as entrances/exits, songs, dances, etc., the values behind it are those of respect, relationships, and reciprocity (Cruikshank, 1990, p. 32).

Cruikshank's (1990) book is an account of three First Nation Elder women of their lives through their stories. This represents another Indigenous value, in that Indigenous women, or Matriarchs, hold much of the knowledge, wisdom, decision-making power, etc., demonstrating this cultural value through her book.

When defining Indigenous Knowledge, Butler (2006) states that it is generally accepted that it is knowledge accumulated over a long period of time through a process of continuity (p. 108). Butler notes that many authors in the field of Indigenous Knowledge, such as Berkes (2018), Ruddle (1994), and Johnson (1992) all emphasize the fact that Indigenous Knowledge is continually being developed, changed, updated, linked to other types of local knowledge, adapts to change, and should not be associated only with an image of the past (p. 108). While this is recognized, Butler (2006) offers a caution in relation to this idea, as Indigenous Knowledge is often used in environmental management as it is considered the opposite of Western science, the latter being criticized for its lack of emphasis on the long-term nature of change, the lack of site-specific or local focuses, and the fact that knowledge is obtained from elsewhere and applied. In this sense, Indigenous Knowledge is applauded for including these aspects in which Western science lacks, but then this runs contrary to the fact that Indigenous Knowledge is dynamic, adaptive, and not static to the past (p. 109-110). Butler (2006) makes the point that not

recognizing the dynamic nature of Indigenous Knowledge does not recognize the fact that Indigenous Knowledge has been oppressed and affected by the dominant colonial system. Not recognizing this presents a danger to using Indigenous Knowledge, because this knowledge has been affected by the colonial system and its practicality has changed with this in some cases (p. 110).

Indigenous Knowledge and values in management

When discussing the benefits of integrating Indigenous and Western Knowledge, Shizha notes how Indigenous Knowledge further relates to sustainable development. He states, “It has the potential to give both teachers and students an enriched understanding of science and its role in promoting sustainable communities and environments through valuing indigenous health practices, environmental protection, and cultivating medicinal herbs, among other benefits” (p. 316).

Nadasdy (2003) notes that there is a global phenomenon that has been occurring where classical Western scientists are attempting to integrate Indigenous and local knowledge into various types of management structures, such as fish and wildlife management, environmental assessments, and agricultural management practices (p. 60). He argues they do this as this knowledge greatly improves our current understanding of these matters and provides a more holistic view of managing. When discussing the practicality of integrating Western Science and Indigenous Knowledge, he notes that Indigenous Knowledge is already a form of science, in that it is a gathering of empirical data to serve a specific purpose, so that the knowledge systems should innately be similar in their application. This empirically-derived knowledge of one culture should therefore be quite similar, in its essence, to the empirically-derived knowledge of

another culture. He argues that because of this, the cultural context should not matter in reference to determining the value of the knowledge in question (p. 60-61).

Previous research conducted within the field of Indigenous Knowledge demonstrates how Indigenous Knowledge can contribute to a Western scientific context. Moller et al (2004) put forward the argument that Indigenous Knowledge is quite valuable in managing natural resources as it is generally based on long periods of time, large sample sizes, and includes local populations in research. They state that Indigenous Knowledge is much like adaptive management techniques and is valuable when paired with Western scientific techniques (p. 1). Roburn (2012) states that it is increasingly important for state governments to include Indigenous Knowledge in decision-making, as it represents community-based and community-led knowledge. The inclusion of Indigenous Knowledge in these decision-making processes allows for a bridging of gaps between institutional knowledge and knowledge that is held by communities (p. 440). She emphasizes the importance of consulting and including the community in formal research (p. 440). She also notes that while Indigenous Knowledge is important in research and decision-making, it is still not widely utilized and integrated, particularly in northern Canadian contexts (p. 440). Shizha (2007) notes the importance of incorporating Indigenous Knowledge into scientific knowledge and societal norms by several international organizations, such as the United Nations, UNESCO, the World Bank, UNICEF, etc. (p. 303). He emphasizes, among other aspects, the fact that Indigenous Knowledge is the basis for decision-making at a local and community level, is holistic, and adaptive (p. 304). While he details the importance of Indigenous Knowledge, he also notes the response to Indigenous Knowledge traditionally by Western science as being dismissive, treating Indigenous

Knowledge as primitive, superstitious, not objectively verifiable, and not based on fact. He also notes that Indigenous Knowledge was and is treated as a barrier to scientific knowledge, as utilizing culture, language, and worldview is an inhibition to science (p. 304).

Co-management regimes

Berkes et al (1991) discuss the basic structure of typical co-management regimes in their purest form. They preface this by describing the different types of environmental management systems in which are commonly seen in Canada: the top-down, centralized, Western scientifically grounded management system that is taken on by the federal and/or provincial/territorial governments in Canada and enforces rules through regulations and laws. The second being the decentralized local management system, typically based on customary practices and tradition, generally consensus-based, where the system is self-regulated and rules are enforced through a type of social stigma (p. 4-5). They indicate that the term co-management refers to some type of integration between these two systems of managing environmental resources. They caution putting a strict definition on the term as it can refer broadly to many different types and styles of integration between the two systems. They also caution the fact that co-management is not necessarily the ultimate solution in bridging the two management systems or for perfectly managing natural resources, but that, if done properly, it can be a more effective way to address environmental issues than either of those knowledge systems alone (Berkes et al, 1991: p. 5-6).

Osherenko (1988) makes the point that styles for managing natural resources can generally be broken down into two aspects: management from a top-down government, and management through a localized Indigenous perspective. She states how neither of these

management styles seems to effectively work in practice if they are being conducted on their own, but that there is opportunity to effectively manage natural resources through the bringing together of these perspectives through co-management (p. 7). She presents the example of the Caribou Management Board that was formed in 1982 to manage the Kaminuriak and Beverly caribou herds in the Canadian Arctic. This co-management board was formed with representatives of the multiple Indigenous Nations using and interacting with the caribou herds, as well as officials representing government (Osherenko, 1998, p. 8). Where it had been previously suggested by government officials to limit harvest of these herds as a result of a conservation concern, through the co-management board findings, it was demonstrated that, through the incorporation of the knowledge provided by Indigenous participants, that the caribou herds were not in fact declining in total population as had been previously thought by government officials. This led to a drastically different outlook as well as management techniques, for addressing concerns with these caribou herds (Osherenko, 1988, p.8).

Berkes (2009) provides a review and summary of the major themes of the study of co-management for the two decades previous to the publication of the article. He characterizes the previous interest in co-management regimes being examinations of co-management and power sharing (including through land claim agreements), co-management and building of institutions (including when there are or are not institutions or policies to guide co-management), co-management as a trust-builder (as trust is found to be a determining factor for the success of co-management), co-management as a process (as there is an assumption laden within co-management that there is a process for managing resources), co-management as problem solving (allowing co-management to be adaptive and generate alternative management actions), and co-

management as governance (recognizing that multiple links must be made across multiple institutions) (p. 1694).

Berkes (2009) makes the point that co-management and co-governance are innately inter-related, in that the purpose of co-management is to provide those people who are to be affected by management decisions agency in those decisions, thus being a form of governance. When the co-governance orientation is applied, he argues that it is possible for the management regime to lead to better compliance, equity, and empowerment of the people of a community (p. 1692).

Borrini-Feyerabend, Pimbert, Farvar, Kothari & Renard (2004) explain the advantages in using co-management or more participatory research within protected area management regimes. These include the ability to address the gaps that occur at a state-level governed protected area, create an openness for diversity within the management of protected areas, improving connectivity of landscapes, the enhancement of public support and buy-in for the goals of protected areas, increasing the adaptability of protected area management, ensuring the sustainability of the management regimes themselves, and the better ability to connect people and nature (p. 64-103). Staples and Natcher (2015) argue that the Yukon co-management boards do have the potential to affect significant political leverage, even though they lack final decision-making power (p. 357). The authors list some of the positive aspects of co-management in the Yukon, such as encouraging better community participation in natural resource management, as well as an improvement in overall decision-making, but also list some potential limitations of Yukon co-management, such as the inability to overcome historical injustices brought about by colonization, as well as difficulty in utilizing Indigenous Knowledge and values (2015, p. 358).

Berkes and Armitage (2010) argue that co-management can be one process that, when combined with other strategies such as adaptive management, can contribute to effectively approaching issues of environmental change that are being seen more frequently (p. 124). They argue that the ability for co-management committees to do this effectively depends on the level of collaboration between the parties and the committee's ability to be adaptive, in that management strategies can be based on knowledge that is co-generated or co-developed between parties (p. 124).

Co-management regimes and Indigenous Knowledge and values

Previous research conducted within the field of co-management demonstrates how Indigenous Knowledge fits (or does not fit) into environmental management regimes. It can be generalized to say that most literature sees value in integrating Indigenous Knowledge and Western science in environmental management in principle, though many authors are cautious about the inequity of many co-management regimes (Nadasdy, 2003) (Berkes et al, 1991). Christensen and Grant (2007) demonstrate the value of Indigenous Knowledge within co-management regimes in the Northwest Territories. They argue that in a post-colonial land claims environment, including Indigenous Knowledge and values in a co-management regime allows for increasing local control over lands and environmental matters (p. 115). Murray and King (2012) argue the value of Indigenous Knowledge in protected area co-management plans on Vancouver Island, showing how participatory values of Indigenous worldviews lend themselves to better management. Nadasdy (2003), when discussing the early stages of the Yukon land claims process for Kluane First Nation, notes how the First Nation does not always necessarily get exactly what they want through the new co-management structure in regards to wildlife

management, but that it opens up a space that forces government and other third-party interests to have to consider their opinions (p. 58). He presents this as a good step forward, while recognizing that it is not always perfect in practice. When Nadasdy (2003) presents a high-level overview of the concept of integrating Indigenous Knowledge with Western science, he discusses how it has been attempted for a considerable amount of time as of now. He identifies the fact that even simply recognizing that Indigenous Knowledge should be embraced as part of environmental management is a positive step forward for Indigenous peoples, but there have not been any processes formalized or standards set for integrating these knowledge systems, resulting in little progress in achieving this integration (p. 114). He notes that even the numerous co-management boards established across Northern Canada tend to fail in their ability to fully embrace Indigenous Knowledge as a result of power struggles in the political realm (p. 114). Nadasdy (2003) notes that the specific co-management regimes that are a product of Yukon First Nation Final Agreements are generally for a multitude of realms, such as environmental assessments, fish and wildlife management, water, and heritage resources. These formalized co-management bodies tend to be a more effective replacement for the ad hoc type boards that were created in the past for the purpose of specific issues (p. 115-116). The goals listed in the Umbrella Final Agreement regarding co-management, which is the framework agreement that individual First Nation Final Agreements are based on, include, “to integrate the relevant knowledge and experience both of Yukon Indian People and of the scientific communities in order to achieve conservation”, and “to enhance and promote the full participation of Yukon Indian People in Renewable Resource Management” (Council for Yukon Indians, 1993: p.153).

These measures represent steps forward to achieving effective co-management, but according to Nadasdy (2003), they can be difficult in practice.

In White's (2006) analysis of the Mackenzie Valley Environmental Impact Review Board and the Nunavut Wildlife Management Board co-management regimes, he argues that both do sincerely attempt to incorporate Indigenous Knowledge, but that the Nunavut Wildlife Management Board is more effective in doing this because the mandate is a simpler one in which Indigenous Knowledge more readily fits, *i.e.* issues encompassing wildlife, such as harvesting and conservation. He argues that these concepts can be characterized as extensions of Inuit Indigenous Knowledge already so it is not as difficult a process to use this knowledge in the management regime (p. 412). White (2006) also notes that in the case of the Mackenzie Valley Environmental Impact Review Board, there is a much less organic process for relating Dene Indigenous Knowledge to environmental impacts of pipelines, diamond mines, etc., making the use of Indigenous Knowledge in this context more challenging for the co-management committee (p. 412). White (2006) goes further in his analysis of the two co-management regimes and presents the views of both of the regulatory bodies (governments) for both of the boards, who note that the governments will too often attempt to extrapolate the Indigenous Knowledge from communities and use it in their own government cultural contexts, but this just reinforces that one culture is dominant in power and decision-making. What is recognized is that the Indigenous Knowledge must be kept, respected, and used within its own context so that there is not a forcing of it into a different cultural context where it will be changed and potentially lose some of its meaning (p. 412).

Potential limitations in co-management

As discussed above, it can be said that it is generally accepted that integrating Indigenous Knowledge with Western Science is valuable in environmental management, though numerous authors do present cautions about co-management. In his discussion regarding Indigenous and non-Indigenous relations in the Yukon from the period of contact, Coates (1984) discusses the fact that the knowledge systems of these two peoples have been different and conflicting ever since that time of first contact. He highlights the fact that, through numerous different intentional means, non-Indigenous people excluded Indigenous people from most aspects of Yukon society, but follows that up with the point that most Indigenous people in the Yukon did not wish to be part of that society anyway. He argues that this difference in basic knowledge and worldview from the beginning of when Indigenous and non-Indigenous peoples began to interact in the Yukon is still something that is needing to be reconciled (p. 11-14). This shows the difficulty of the integration of Indigenous and non-Indigenous knowledge systems as part of co-management.

Some authors, such as Spak (2005), go as far to warn that the use of Indigenous Knowledge within co-management is a detrimental process to Indigenous peoples. She notes that often co-management boards appear to be including Indigenous Knowledge on the surface, such as by having Elders present to recite opening prayers at meetings, but after further investigation tend to use Western scientific management techniques exclusively when managing important ecological resources. She argues that there is an inherent danger in this, as there is an appearance of adhering to the mandate of Indigenous Knowledge in co-management, when in practice it is disregarded (p. 237-238). Butler (2006) recognizes the popularity in utilizing Indigenous Knowledge in environmental management through co-management regimes, but also cautions the use of this integration when the colonial past that has detrimentally affected the resources

which managers are now trying to protect is forgotten or not recognized (p. 110). She argues that it is not practical, and even dangerous, if all hope for sustainability is put onto Indigenous ways of knowing solely. This is exacerbated when the previous Western scientific management systems decimated the resources that are now deemed important to protect (p. 107-108). She argues that there needs to be recognition that colonial states oppressed Indigenous peoples and thus Indigenous Knowledge previously for there to be adequate inclusion of this knowledge system in the greater framework of co-management (p. 108). Butler (2006) also discusses the fact that Indigenous Knowledge can be oversimplified by Western Knowledge systems, in that it is treated as applying in a simplistic way to a very remote, untouched, non-industrial community. This overlooks the complexity of the relationships embedded within Indigenous Knowledge. In that context, Indigenous Knowledge is seen as untouched, unrelated to Western science, and not relatable to knowledge systems of places in which are populated by non-Indigenous people (p. 109). Butler (2006) also identifies the danger in removing an empirically based knowledge from its place and context, as in a management plan. She discusses how this risk can be mitigated, though, by intensively using the contributions, and in collaborating with, the community in which is being affected (p. 123).

King (2004) presents a caution to co-management regimes in their utility to empower Indigenous governments to be involved in decision-making where she discusses the fact that at times, national and international agreements or institutions can override a localized decision-making regime that includes Indigenous Knowledge and values (p. 162). Berkes (2009) offers a similar critique of the co-management system in that it can exclude those who are marginalized in a community leading to a reinforcement of a local elite, or indeed foster the power of the state

government because it can assimilate the community-based nature of the management regime into a state-sponsored regime (p. 1692). Berkes (2009) also points out a difficulty in successful co-management, being that of creating trusting relationships. He argues that utilizing both Indigenous Knowledge and Western science-based Knowledge does not involve a synthesis of the knowledge systems, but a mutual respect, recognition, and use of both in tandem, and that this can only be achieved through a trusting relationship (p. 1699).

Smith (2004) takes a slightly different approach to documenting the potential difficulties in integrating Indigenous Knowledge and Western Scientific Knowledge, in that when discussing the results of the “*Group interviews and camping weekend with elders to learn about use and distribution of a rare fish: Squanga Lake Whitefish, 1996-2003*” research project involving C/TFN Elders, he notes that there was difficulty in summarizing the information that was gathered through the oral tradition, as sections of the summary did not make sense once they were written down in text form. This demonstrates the difficulty in representing Indigenous Knowledge within a written management plan, as Indigenous Knowledge in itself is contextual (p. 75). Gehl (2017) builds on this point, as she discusses Indigenous processes of knowing, knowledge that is taken out of its context and not gained through experience can be misunderstood and represent a danger in attempting to use it in management. She notes that simply adding on an Indigenous Knowledge section to a plan rooted in the Western Scientific framework removes this contextual consideration (p. 34).

Cruikshank (1990) makes this point frequently as well. She presents the example that the three respected Yukon First Nation Elders on whom her book focuses speak English but must communicate some terms, concepts, place names, etc., in their own Indigenous languages. She

notes a recognition of being wary of recording stories in English, as those stories were taught to the story tellers in their own languages (Tagish and Tlingit in this case) and too much is lost through translation (p. 16). She also makes the point that the values laden within a story may not be readily understood simply through an examination of the words being put forward, but that many of the concepts are contextual. This highlights the potential difficulty in sharing a story as part of a written management plan, as those grounded in a more Western Scientific Knowledge system may not perceive those values through the simple examination of the text of a story. Cruikshank (1990) states that the ability to properly or adequately interpret a story is contingent on having a sense of the story teller's background. She makes the point that, too often, a listener of a story will attempt to extrapolate that story to their own life which then can distort the values and context of that story being rooted within its own cultural context (p. 4). Cruikshank (1990) continues to discuss the trouble she faced in translating stories told in Indigenous languages into English, as she notes, and as stated previously, that certain terms may be lost in translation, but there is also the risk of losing the context, purpose and reason behind a story when English is used. She notes that the linguistic form in which is character of the Tagish language is almost opposite of that of English, where sentence structure and word formation are opposite in a way when communicating orally (such as verb and noun placement) (p. 18). She notes this as an issue in translating stories from an Indigenous language into English, but also recognizes that the point of telling a story is lost if nobody is able to listen to or read it for lack of being fluent in that Indigenous language. What she notes is of utmost importance when putting stories into written English form is to keep the context and recognize that a story, through most Tagish and Tlingit contexts, is told to teach or explain a certain phenomenon (p. 17). This is what must be kept

consistent when translating for a wider audience to be able to experience, such as through a co-management plan. An example of terms being lost in translation from Tagish or Tlingit into English is presented by Cruikshank (1990), where Angela Sidney discusses the difference in the understanding of the term “auntie” between Indigenous and non-Indigenous people. Angela Sidney’s understanding of the term “auntie” was in the context of the Tagish/Tlingit worldview, in that they represent people of opposite moiety in which have influence over a person’s life in many different ways, but that may not necessarily simply be one’s mother’s or father’s sister as it is understood in a Western context. This proved difficult to understand for non-Indigenous people when they heard of Indigenous people marrying their aunts as an example, as it was treated as highly inappropriate in a Western context, where the term means something quite different in an Indigenous context (p. 34).

Berkes and Armitage (2010) question the ability of individual co-management committees that are typically focused around one mandate (*i.e.* wildlife management) to be able to extrapolate their processes to approach other environmental issues such as climate change (p. 124).

Nadasdy’s example of hunting

In chapter two of Paul Nadasdy’s (2003) book “*Hunters and Bureaucrats: Power, Knowledge, and Aboriginal-State Relations in the Southwest Yukon*”, an example is presented that demonstrates the difficulty in and importance of integrating Indigenous Knowledge and Western science within fish and wildlife management (Nadasdy, 2003, p. 60-114). I utilize this example as it represents a clear, Yukon-based example of knowledge integration (or lack thereof) that is fairly easy to grasp. To be able to determine if these knowledge systems can be integrated,

Nadasdy (2003) argues, and demonstrates through his case study of Kluane First Nation, that the way in which the people making up an Indigenous culture conduct themselves and see their world must be understood. To do this, he argues that the beliefs, social interactions, practices and values that inform a culture must be understood before it can be assumed that this knowledge can be integrated and used as part of a co-management regime (p. 62-63). Nadasdy notes that when it was asked of a Kluane First Nation member “what is traditional knowledge?”, this person described how it wasn’t really knowledge at all, but more of a way of life. This demonstrates how the way of life of the Indigenous Nation needs to be understood to be able to make use of that Nation’s knowledge (p. 63).

Nadasdy (2003) presents the concept of hunting to demonstrate this point. He notes that Western scientists tend to treat hunting simplistically as the killing of an animal. This is in contrast to the Indigenous context where hunting represents certain practices that are engrained within a set of social beliefs regarding how humans relate to each other and to animals (p. 63). He also discusses the fact that even though specific hunting practices have changed over a period of time, the basic concepts surrounding the phenomenon still remain integral to the culture and knowledge of the Indigenous Nation. This practice of hunting is just as important to the culture for basic physical survival as it is to being an Indigenous person of that Nation. This type of knowledge can be attributed to Indigenous Knowledge; the fact that it makes one who he/she is as an Indigenous person (p. 75). Nadasdy (2003) notes that too often Western ideology will try to keep activities separate from each other in an attempt to understand them singularly, but this takes away from the concept of hunting and how it is holistically embedded in many other activities that make up an Indigenous culture, such as cooking, sewing, feasting, etc., that are all

intrinsically linked to each other and to the practice of hunting (p. 65). This example of hunting shows that the knowledge is not simply derived from and attributed to a singular act of killing an animal, but is intrinsically engrained in several other practices that are integral to the culture. This shines light on the way in which the formation of knowledge is different between Indigenous and Western cultures, and these aspects must be recognized to begin to understand and embrace Indigenous Knowledge by Western scientific thinkers.

When discussing the complex relationship which Kluane First Nation people have with animals, Nadasdy (2003) notes that respect is at the foundation of all ideas concerning and interactions with animals for Indigenous peoples. He makes an interesting point, however, in that he ascertains that there is no word for respect in the Southern Tutchone language (language of the Kluane First Nation), so that the concept of respect cannot simply be translated from its English form to mean the same thing (p. 80). He presents the idea that this represents a risk when Western scientists attempt to represent what they feel is a respectful action or belief in regards to Indigenous people without actually deeply understanding what this concept means to them. There is an assumption made that the Western and Indigenous concepts of respect are one in the same, which may not be the case (p. 80). This misunderstanding represents a potential flaw in the co-management system, in that Western scientists and Indigenous scientists may believe they are referring to the same concept, when in essence they represent different values.

The example that Nadasdy (2003) presents to explain this division is that of the notion of respect presented within the Yukon Hunting Regulations (at the time of the publication of the book). He notes that the Yukon Department of Renewable Resources (the Yukon Government Department in charge of wildlife-related legislation at the time) conveyed the concept of respect

for an animal, in reference to First Nations, through the practice of not wasting any meat. They present this concept a few times throughout the regulations with quotes from Art Johns, C/TFN Elder, to reinforce the practice (p. 80). Nadasdy (2003) notes that this can represent a simplistic notion of the First Nation concept of respect because it does not actually explain any detail regarding the reasoning for not wasting meat; *i.e.* the value behind the notion for respect (p. 80). An example of taking the simplistic understanding of respect and applying it to an environmental management technique is that of catch and release fishing (Nadasdy, 2003, p. 81). Catch and release fishing represents a very well utilized technique by Western scientific fisheries managers, where this does not coincide with the concept of respect for most Indigenous Nations. To Western scientists, no part of the fish is being wasted and everything that is being taken is being utilized, therefore there is a respectful interaction shown with a fish that is caught and released. Even though no physical part of the fish is being wasted, it is still treated as a disrespectful practice to catch and release a fish in an Indigenous context. This is in part because the value behind the concept of respect, in an Indigenous context, comes from only using animals for food and not playing with them for other reasons of personal enjoyment (Nadasdy, 2003, p. 81-82). There are many stories told in the community in which Nadasdy (2003) conducts his research that tell about proper respect shown to fish, including not catching them unless it is necessary. Nadasdy (2003) quotes Mark Wedge, a respected C/TFN leader and Elder, who states, "The fish comes to you as a gift. It's offering its life to you. And if you don't accept it, that's an insult. Sooner or later, the fish will stop coming to you" (Yukon Department of Renewable Resources, 1997, p. 21). This example shows the contrast that is possible between the values that represent concepts depending on which worldview one comes from. It demonstrates that Western scientific

knowledge treats respect to animals more as a value in not wasting parts of an animal, where Indigenous Knowledge treats respect to animals more as a value in concern for the thoughts, feelings, and well-being of animals (Nadasdy, 2003, p. 83).

The concept of respect for animals, and thus how people and animals interact, is quite different between Indigenous and non-Indigenous worldviews, as demonstrated by the above arguments from Nadasdy (2003). He discusses the difficulty in then reconciling the two knowledge systems for the purposes of environmental management. He notes how Western biologists treat animals as outside of themselves and their relations, things that can be studied using quantitative means, as lacking consciousness and relation to humans. This lack of a relation to humans creates a perception that there is no reciprocal relationship between animals and humans, only that humans can affect animals through activities such as harvest, harassment, habitat fragmentation, etc. The relationship with animals thus becomes one of sound management, rather than as a social reciprocity (Nadasdy, 2003, p. 109). This makes it difficult for those prescribing to the Indigenous worldview to treat scientific management means as appropriate, as the means of studying animals in the Western scientific style can be seen as disrespectful. The way in which Indigenous Knowledge frames knowing animals is through the patient observation, *i.e.*, letting the animal itself demonstrate its behaviour. This does not tend to mesh well with the Western scientific approach of taking information from animals at the researcher's pace, *i.e.*, through radio collaring, aerial population surveys, and excrement and animal remain studies (Nadasdy, 2003, p. 109-110). Nadasdy (2003) argues that Indigenous people simply contributing data to Western scientists in a co-management regime does not represent appropriate knowledge integration, as taking that data on the surface does not delve

into the social aspects, beliefs, and cultural understandings behind the collection of that data (p. 112). He notes that it certainly is possible for Western biologists and Indigenous people to understand each other regarding animals, but it remains difficult in practice to use those understandings through the mechanisms set out by state governments (p. 112). Nadasdy (2003) argues that this is a result of political power relations in which intrinsically value one knowledge system over another. These political inferences that create certain values of “what is knowledge?” are what need to be examined within the co-management systems laid out by the land claims process, argues Nadasdy (2003, p. 113).

Definitions

For the purpose of this research, I am using the term “Indigenous Knowledge,” which has a number of different definitions in the literature. There have been many attempts to define the concept of Indigenous Knowledge, sometimes also referred to as Traditional Knowledge, Traditional Ecological Knowledge, Local Knowledge, and other various combinations of these. Davidson-Hunt and Berkes (2003) define this concept as, “a cumulative body of knowledge and beliefs, evolving by adaptive processes, and handed down through generations by cultural transmission” (p.2). Berkes (2018) argues the fact that the term “Local Knowledge” is utilized more in the context of recent knowledge that applies more often to non-Indigenous peoples. The term Traditional Ecological Knowledge, which is also used widely in this field, is encompassed within the overarching definition of Indigenous Knowledge used in this research. I will refer to Indigenous Knowledge rather than Traditional Knowledge, as Indigenous Knowledge is dynamic and continuously evolving, and is not static and limited to past knowledge, which can sometimes be implied by the use of the word “traditional” (Berkes, 2018). This term includes both

traditional and contemporary Indigenous Knowledge, as being exclusive to one or the other limits the practical application of the knowledge.

As can be seen through this literature review, it is difficult and controversial to put rigid definitions on what Indigenous Knowledge and values are. In his discussion on defining Traditional Ecological Knowledge, Berkes (1993) identifies the fact that these terms are quite ambiguous and are difficult to define. He identifies the fact that the term “traditional” has a historical connotation, and thus is not used by many researchers because of the fact that Indigenous Knowledge is dynamic and changes and adapts over time. He also makes the point that the term “ecological” can also be taken as inappropriate when referring to Indigenous Knowledge, because it is derived from a Western scientific framework. He discusses the fact that Indigenous peoples themselves at times do not consider this term “ecological” to appropriately describe their knowledge, in that this knowledge is derived from the land (p. 3). In the context of land-related knowledge, Berkes (1993) identifies the fact that the reference to the land in question is not strictly in the physical sense (which is what is implied in ecology), but takes on a deeper meaning. In this context, land also refers to a living environment (p.3). To demonstrate the myriad of definitions for the terms regarding Indigenous Knowledge presented through the literature, the Resource Centre for Aboriginal Forestry Issues in Canada (1996) has put together a Definitions of Traditional Knowledge document. It is one attempt to pool together the vast variety of definitions from various academic sources. Some of the general themes that come out of this list are the fact that Indigenous Knowledge encompasses a relationship between humans and other beings and environment, that comes as a result of many generations of resource use (Berkes, 1993, p. 3), that Indigenous Knowledge is transmitted orally, that it is gained through

first-hand experience or empirical observation, that it is interconnected between environmental, social and spiritual aspects of knowledge, that it is fluid, dynamic, and constantly evolving (Stevenson, 1998, p. 281) (Usher, 2000, p. 186-189), that it includes values, beliefs, and worldviews of Indigenous peoples, and is holistic and inclusive of experience (Dei, 1993, p. 105) (Abele, 1997, p. iii), that it is place-based and contextual (Warren, 1991, p. 1), that it involves a deep understanding of ecological processes, that it forms the basis for socio-economic organization of Indigenous societies (Berkes, 2018), that Indigenous Knowledge is a science (Hobson, 1992, p. 1), as well as many other aspects

There is a distinction between Indigenous Knowledge and Indigenous values, as knowledge refers more towards specific practices, applications, etc., where values refer more to worldview, perspective, and ideology. Indigenous Knowledge refers more to what can be physically identified as a mechanism for expressing the knowledge that is typically held by Indigenous people or specific Indigenous Nations. Indigenous values form the meaning and intentions behind those specific aspects of or mechanisms for expressing Indigenous Knowledge. In essence, Indigenous Knowledge forms what is taught, learned, and practiced, where Indigenous values form the meaning and intention behind those practices. Both of these terms are at times presented in tandem with each other as they are related, but they do not always refer to similar phenomena.

The term protected area, as laid out by the Yukon Umbrella Final Agreement, refers to any area identified within a First Nation Traditional Territory that is to be protected, and may include national parks and wildlife areas, territorial parks and historic sites, fish and wildlife management areas, bird and wildlife sanctuaries, and watershed protection areas (Government of

Canada et al, 1993, p. 87). For the purpose of this research, I will be focusing on a protected area in a Yukon context.

Berkes (2009) provides a generalized definition of the concept of co-management, described as, "the sharing of power and responsibility between the government and local resource users" (p. 1692). He also offers a more specific definition of co-management, as, "a range of arrangements, with different degrees of power sharing, for joint decision-making by the state and communities about a set of resources or an area" (p. 1693). He argues that effective co-management must include a strong link between government and the user group as well as formalized processes for responsibility and power sharing (p. 1693).

Methodology

Research questions and objectives

The major research objective is as follows:

To investigate the inclusion (or absence) and role of Indigenous Knowledge and values in a co-managed protected area management plan in Yukon.

The main research question is as follows:

To what extent are Indigenous Knowledge and values included in the Tagish River Habitat Protection Area management plan and planning process?

Sub-questions

A series of sub-questions to inform the main question of this research are as follows:

To what extent do stakeholders perceive Indigenous Knowledge and values to be included in this co-management plan?

How are Indigenous Knowledge and values included in this co-management plan? What aspects are included?

What are stakeholders' hopes and intentions for including Indigenous Knowledge and values in this co-management plan?

Are stakeholders satisfied with the extent to which Indigenous Knowledge and values are included in this co-management plans? Why or why not?

Methods

This research used a qualitative approach, focussing on a case study of the Tagish River Habitat Protection Area, to investigate the concept of Indigenous Knowledge and values in co-management. Data collection methods include semi-structured interviews, document analysis and to some extent, participant observation. Because of the myriad of definitions and contexts that apply to Indigenous knowledge, examining this topic through a case study is an effective method, rather than to examine Indigenous knowledge on a wider, all-encompassing scale (Corcoran et al, 2004). Examining the management plan as an in-depth case study allowed me to delve into the details, including the process by which the plan was written as well as the text of the plan itself. Such use of case studies regarding protected areas is demonstrated by Murray and King (2012) in their research on Indigenous Knowledge within protected areas on Vancouver Island. This allowed the authors to study each case in-depth to address the research question.

Data Collection

A review of the HPA Steering Committee documents was conducted as part of the research. This allowed for a comprehensive background of the planning process to be examined. The document analysis involved the study of primary sources, such as meeting minutes and other

materials created by the planning committee. These documents allowed an inside perspective on what was discussed during the planning stages, and whether Indigenous Knowledge and values were adequately reflected in those discussions. The analysis of these documents allowed for first-hand insight into how each government represents themselves as well as their perspectives on Indigenous Knowledge and values within the planning process (Coffey, 2014, p. 377). These documents allowed me to gain a more holistic perspective on the planning process, as it allowed for the examination of the meeting minutes released by the governments in addition to the interview results in which together provide an in-depth view into the planning process (Coffey, 2014).

In addition to the document analysis, semi-structured interviews were also conducted. As Warren (2001) notes, these qualitative interviews aimed to generate themes and patterns between interviewees (p. 86). The data collected from these interviews builds on the analysis of the documents identified in the previous section. As the plan was still in a finalized draft form that had not been released publicly at the time the interviews were conducted, interviews gained an inside perspective into the planning process and how those involved perceived Indigenous Knowledge and values to be represented within both the draft plan and the planning process itself. Seven interviews were conducted in total. I believe this achieved theoretical saturation in this research as all relevant stakeholders have been interviewed, and all relevant data from the document analysis available at the time was analyzed (Mills, Durepos, & Wiebe, 2010, p. 929). Interviews were semi-structured, as the questions were created for the purpose of collecting specific data, though they were conducted in an open-ended manner to encourage more of a discussion with participants, allowing there to be room for the interviewees' own interpretations

in addition to representing the mandates of their organizations. This stimulated discussion during the interviews between the researcher and the respondents (Pierce, 2008, p. 119). The goal of these open-ended interviews was to allow interviewees to reveal their perceptions and interpretations of the management plan to create their own meaning (Warren, 2001, p. 84). Warren (2001) notes that qualitative interviews are for the purpose of gathering interpretations regarding a subject, rather than specific facts about it. The purpose of the interviews in this research was to gather the interpretations of stakeholders involved, familiar with, or affected by the management plans, rather than to derive specific facts about the plan (Warren, 2001, p. 84). When discussing how conventional social scientific data collection methods are not always ideal for gathering information regarding Indigenous Knowledge, Roburn notes:

Standard qualitative social science methodologies such as questionnaires and structured interviews do not lend themselves to accessing storytelling, and they can fall short in garnering the breadth of traditional knowledge that TH citizens have to offer. Overly structured interviews may tire out interviewees, who feel that their expertise is not being properly tapped and that they are being asked repetitive or irrelevant questions (p. 447).

This demonstrates the importance of the semi-structured nature of the interview questions considering the nature of the topic of Indigenous Knowledge. Questions attempted to collect data about the perceptions and opinions of interviewees of how they define Indigenous Knowledge, whether they consider Indigenous Knowledge and values to be portrayed in the management plan, what they consider to be the role of Indigenous Knowledge and values in the plan, what Indigenous Knowledge and values should look like in the plan, how to evaluate the use of Indigenous Knowledge in the plan, and what their hopes are for seeing Indigenous

Knowledge and values in this and future co-management plans. To ensure anonymity, each participant was assigned a random code consisting of the letters CTGT as well as a number based on the order in which they were interviewed in. A list of interview questions is included in Appendix C – Interview Guide.

The combination of these methods aims for comprehensive data collection through the process of triangulation. The use of these multiple methods specifically allows for the objective facts of the management plan, as well as the subjective perspectives of the people involved in planning process to be collected and analyzed (Flick, 2007, p. 40). These different forms of data converge to complement each other in the analysis (Flick, 2007, p. 49). Creating a convergence of the results of the data collection best serves to strengthen the answer to the research question, rather than an attempt to force congruency through different methods (Flick, 2007, p. 49).

Participant Selection

Seven interview participants were selected using a purposive process, in that they were comprised of those that have the most familiarity with the Tagish River HPA plan and planning process, as well as with working with Indigenous Knowledge in co-management. The majority of these participants are those with whom I have already have an established relationship with through my previous work with this HPA process. This is important as it allowed me to ensure these participants have a working knowledge of the management plan, or of Indigenous Knowledge within environmental management in general. Roburn (2012) states, “developing good community relationships is difficult and time-consuming; that it is essential for researchers to spend time in the community; and that communities and individuals can still feel taken advantage of in the research relationship” (p.445). I have specifically chosen to work with the

Tagish River HPA plan as I have developed preliminary relationships with many of the people involved, mitigating this concern in which is typical to working in First Nation communities. Theoretical purposive sampling was utilized to select respondents, as participants from particular organizations with knowledge regarding the management plans or Indigenous Knowledge relating to environmental management were selected. These respondents were deliberately sought as interviewees as they have the information required to address the research objective (Morse, 2004, p. 885). Shizha (2007) utilized a qualitative approach in his research, using purposive sampling to pick a relatively small sample size to study (ten), noting that this is typical practice of some qualitative studies. This is because he was looking to get an in-depth understanding of what his participants' perspectives on the integration of Indigenous Knowledge within a Western scientific framework are, using semi-structured interviews. He was not aiming for generalizability or representativeness of a larger population (Shizha, 2007), which is the approach this research took. A form of triangulation within the responses itself was sought by seeking out interviewees from different groups, such as members of First Nations and/or employees of First Nation governments, as well as other Yukon Government employees with interest and experience in the realm of Indigenous Knowledge (Pierce, 2008, p. 121). Past and present representatives from C/TFN government and Yukon Government that worked within the planning process as part of the Steering Committee were interviewed. These participants were selected accordingly to act as representatives of each of their organizations (governments) and to represent the perspectives of each of their organizations in addition to their personal perceptions, as it was necessary to gather the perspectives of each (Flick, 2007, p. 43). While it may be preferable in certain studies to choose random participants, for the purposes of this research, the

interviewees needed to have a knowledge of the management plans and/or Indigenous Knowledge within environmental management in general, as well as having most being involved directly in the planning process. The perspective of each representative was analyzed, and conclusions have been made using these data that seem the most plausible (Flick, 2007, p. 45). These conclusions are presented below in the Results and Discussion and Conclusions and Recommendations sections. Collecting the perspectives of each government mitigates the potential bias of bringing a previous assumption to the research. Gathering each perspective, rather than simply one government's perspective, presents alternative or different conclusions, resulting in one perspective not being given preference to address the research question (Flick, 2007, p. 44).

Interview Locations

The interviews took place in the Yukon, all in person. In-person interviews were the preferred approach over telephone interviews, as Shuy (2001) notes that the in-person interview can be effective for data collection such as in the context of my research. This includes gathering the interpretations of respondents rather than uniformity and/or consistency between respondents, the semi-structured nature of the interviews and the need for naturalness of responses, and to allow respondents to generate their own ideas (p. 538). Interviews were recorded with an audio device and summary notes were taken after the fact to address non-verbal aspects of respondents. Participants representing government agencies were located centrally within the City of Whitehorse. First Nation government representatives for the Tagish River Habitat Protection Area are situated within the communities of Carcross, Tagish, and Whitehorse, in south-central Yukon. Travel to these communities is quite simple given their

close proximity to the City of Whitehorse, though all interviews with First Nation representatives were conducted in Whitehorse, typically in Whitehorse-based offices or at meetings spaces. An office setting in Whitehorse was also made available for participants who preferred to have interviews conducted there.

Results and Discussion

The review of the TRHSC meeting minutes provided an in-depth understanding of the discussions, issues, and concerns brought up by the TRHSC as part of planning meetings, as well as the feelings, thoughts, and intentions of the TRHSC members. These have been utilized in a way to reinforce the thoughts and concerns raised by interviewees when they were also represented within the planning process discussions. The minutes from all the meetings were analyzed, from the beginning of the process in April of 2015 to the most recently available minutes to the time of this research of June 2018. While specific discussions are demonstrated below to support and inform the interview responses, some of the general themes relating to Indigenous Knowledge and values that are reflected in the meeting minutes generally are that of emphasizing inclusivity and providing spaces for all perspectives and voices of stakeholders who use the Tagish area to be heard and considered, to encourage education over enforcement wherever possible, and emphasis put on using specific mechanisms to ensure the Medicine Wheel and seasonal approach were used to frame the structure of the plan. The concepts of respect, reciprocity, and relationships were brought up frequently throughout all the meeting minutes, particularly with regard to respect for the river, land and other beings, for each other as part of the TRHSC, for other people using the Tagish area, to encourage the use of different ceremony to give back to the river, and to foster good trusting relationships between the planning parties as well as all

other organizations and individuals that use the Tagish area. What can be seen by objectively looking through these meeting minutes in a general sense in that the TRHSC has made great efforts to make this an inclusive process. This is demonstrated by how the frequency of discussing consultation and review with the public and the parties, the numerous different individual and organizations that are invited to participate in meetings, the numerous meetings held for specific organizations or in the public realm, as well as the frequent check-ins that stakeholders are properly being represented.

The interviews revealed interesting opinions and perceptions of Indigenous Knowledge and values within co-management, particularly within the HPA planning process in the Yukon, and specifically within the Tagish River HPA planning process. In order to present these results, they are organized below as sub-headings according to the questions asked by the researcher, which also represent the sub-questions in the research objective. These results summarize the information provided by interview respondents.

What is Indigenous Knowledge?

As was mentioned above in the Literature Review section, there is no universally accepted definition of Indigenous Knowledge. This was reflected in the responses provided by interviewees as well, though some interesting perspectives were shared. Many themes in what interviewees brought up are similar even if they may not all have shared the same definitions. Interviewee CTGT_010 expressed that Indigenous Knowledge represents a connection to land, a sense of place to a certain area that comes from a deep cultural connection, and that this is typically expressed through story or oral history, whether stories that someone had actually experienced or just used as tools in order to share the knowledge of a Nation. CTGT_010

revealed how Indigenous Knowledge represents the identity of an Indigenous Nation and the people of that Nation that is linked to a certain area or space of land.

Interviewee CTGT_030 stressed the teaching and knowledge transmission aspects of Indigenous Knowledge. Interviewee CTGT_030 stated, “Well to me that’s the teachings we’ve received as First Nation people, as Yukon First Nation people, from the womb to the spirit world is how we’re taught to refer to that because we’ve been receiving these teachings from our ancestors, our Elders, our relatives especially on the maternal side – they’re supposed to be our teachers, our models, trainers, advisors.” This demonstrates how Indigenous Knowledge is specific to a certain place and Indigenous Nation, that it is contextual, as well as its dynamic nature, how it is continually evolving over a person’s lifetime. Interviewee CTGT_030 also brought up the fact that certain knowledge holders are the ones who pass on knowledge, such as Elders and the women of the community.

Interviewee CTGT_020 explained many different aspects of Indigenous Knowledge, generally all themed around being derived from the earth or land. Interviewee CTGT_020 stated, “For me the word Indigenous Knowledge...Indigenous kind of means to a location often times....To me Indigenous Knowledge, and what we’re trying to do, is go beyond the colonial processes of knowledge and to actually start pulling out what is that earth-based knowledge. Most Indigenous cultures have an affinity and relationship with the earth and the environment that evolved into not only their knowledge base, but their systems in how they interacted and how they governed, all of those things is components of that.” This shows the nature of Indigenous Knowledge also being specific to a certain place, again that it is contextual. It also shows the inclusive nature of Indigenous Knowledge and its focus on respectful relationships.

Interviewee CTGT_020 went on to discuss some specific aspects character to Indigenous Knowledge, where it was stated, “that’s what...Indigenous Knowledge is about...where it evolves from the environment, from the earth, that knowledge and how people have expressed it varies a little bit but is fairly consistent. So, the expression of that Indigenous Knowledge may vary depending on where you’re from or which environment you’re from, but there seems to be a common theme in terms of decentralized power, decentralized education system, which is contrary to what’s generally accepted now, which is colonial thinking and knowledge which is a process of colonization.”

Interviewee CTGT_020 also presented some differences between Indigenous and Western Knowledge. Interviewee CTGT_020 stated, “Often times, in order to colonize something, you centralize power, you centralize knowledge, you centralize all of these things into a centralized power structure which is reflected in your governance structures. Whereas most earth-based cultures or Indigenous cultures that are enviro-centric, tend to focus on shared powers, shared knowledge bases. So, the tools are a little different than the colonial tools. So...how do we get back to that?”. This raised an interesting point which is the purpose of the co-management system, to recognize the differences in the Knowledge systems and tools for seeing the world, but to use both to manage resources collectively.

When discussing what Indigenous Knowledge is, Interviewee CTGT_040 brought up some similar themes, including the fact that Indigenous Knowledge is about connections, respect, relationships, reciprocity, and that it is dynamic in nature. Interviewee CTGT_040 stated, “Indigenous Knowledge is an understanding of how people should live with the land, with the water, how to respect, how to give back, how to be stewards, but beyond being stewards, how

to be brothers and sisters with the land and the wildlife and the fish. And that that knowledge is passed on through generation to generation but it's not stuck in the past, it evolves and allows for movement forward as we face new economics and new ways of living, that sort of thing. So, it's underlying values and laws that help guide us to live appropriately with the land as things change.”

Interviewee CTGT_040 also went further to present some examples of differences between Indigenous and Western Knowledge. Interviewee CTGT_040 stated, “I think the Western concept of what knowledge is, is more empirical, it's more dots on maps and numbers of fish and numbers of caribou, specific locations where those things were happening, and really Indigenous Knowledge has that, there's some of that that individuals hold and that's been passed down through their families but that's just kind of the very tip of the iceberg, like it's really not about the lines and dots on a map, it's about why are those lines and dots there, why are they not in other places, why do we avoid certain areas at certain times, there's so much more to it...it's so intangible that it's hard to fit into that Western science understanding.”

When discussing the meaning behind Indigenous Knowledge, Interviewee CTGT_050 brought up many of the same points shared by other interviewees, with some of the common themes surrounding a connection to the land, being based on observation, and being transmitted orally over multiple generations. Interviewee CTGT_050 stated, “I would describe it as information that is held by a culture of people who have a long historical connection to their environment, it's kind of what I've developed as a working definition in my head. I would say that the knowledge is probably observation based and transmitted often orally, it's not necessarily a rigorous empirical data driven creating knowledge, it's more experiential and based

on observations over multiple generations.” This shows these common themes, as well as a link to a specific place, region, or environment, as was also expressed by other interviewees.

When discussing Indigenous Knowledge, Interviewee CTGT_060 stated, “to me it’s knowledge of the people who have actually been on the land, that have practiced these practices that we talk about”. This perception indicates the placed-based nature of the knowledge. Interviewee CTGT_060 also expressed some mechanisms by which to exercise Indigenous Knowledge where it was stated, “hunting, trapping, medicine gathering”. Another aspect of Indigenous Knowledge brought up by Interviewee CTGT_060 was the transmission of that knowledge. Interviewee CTGT_060 stated, “but also passing it down, so educating the youth and other people...passing it on and also using it so it’s some kind of tangible item”.

When discussing what Indigenous Knowledge is, Interviewee CTGT_070 broke it into different pieces, one in the context of an environmental management plan, and then one just in general. This shows how the concept of Indigenous Knowledge is contextual, not just to certain places as mentioned before, but also to certain situations. Interviewee CTGT_070 stated, “So I’d see it as two things, one is a First Nation’s point of view and what they bring to the table in that case (of a management plan) and then how they see the world. Then the other part of knowledge that’s been passed down through generations and is often held by certain people, knowledge keepers or Elders, that’s shared generation to generation. But obviously it’s a lot more complicated than that. That’s kind of how I see it, and when you say Indigenous Knowledge in a plan, it’s kind of the information a First Nation wants reflected in there and how that effects the outcomes of the recommendations and policy.” An interesting point on the topic of Indigenous Knowledge within co-management was brought up by Interviewee CTGT_070. This was the fact

that Indigenous Knowledge and Western scientific Knowledge are innately different, and that there needs to be a recognition of that. Interviewee CTGT_070 stated, “Yeah and that they fit with each other (Indigenous and Western Knowledge), and sometimes they just don’t”. This shows that there is a recognition that the knowledge systems are different, but that they can both be equally utilized in co-management. In this context, there is not a forcing together of the two knowledge systems, or trying to integrate one within the other or compare one to the other, there is just the recognition that they are both valid tools for managing natural resources.

The majority of interviewees voiced satisfaction that Indigenous Knowledge is starting to receive the recognition it deserves as part of environmental management, particularly in the Yukon, through mechanisms like HPA planning. An example of this is where Interviewee CTGT_10 stated, “I think it’s great that it’s (Indigenous Knowledge) receiving the recognition and momentum, considering the history that we’ve seen with Indigenous rights, culture, and knowledge on the land that have been put to the side, but it’s very much coming back into the spotlight again, and becoming more known and important in the eyes of non-First Nation people. It’s nice to see because it’s also respectful.” Interviewee CTGT_020 also stated, “we’re only beginning to articulate some of that worldview and some of those concepts, because what we do, as Indigenous peoples have to do, through residential schools, through the colonizing process, is to understand the Canadian, American, European worldview and how they fit in, and it’s only in the past decade or so where the world is starting to pay more attention to the Indigenous worldview, and recognizing that it plays a significant part in the evolution of stuff.” Interviewee CTGT_020 also stated, “I’m encouraged that we’re starting to move in the right direction, but the most important thing is that this new generation of North American Indigenous populations

are beginning to get more articulate, what you're doing with this study, is to be able to articulate both an academic and Western understanding of what those traditional values are. For so long people didn't understand it, they talked to (name redacted, C/TFN Elder), (name redacted, C/TFN Elder), (name redacted, C/TFN Elder), and they kind of got a sense of it, but they weren't able to articulate that worldview. And understandably, they interpreted it to a Western view. So, what we're beginning to do is to actually take it further. We should actually say we want the Western worldview to accommodate better, and we're starting to articulate that, you know the Indigenous worldview, so it's coming up with legislation, coming up with policies, so I'm encouraged by it." On this point, Interviewee CTGT_030 stated, "I'm encouraged by government sitting in the same room and talking with us, it's a huge honour to represent... First Nation people with our point of view... what's really amazing to me... is that scientists are actually proving our traditional and cultural teachings. They don't realize they're even doing that, but to me it's astounding. These things that we've known all the time yet they're just now getting to the stage where they're proving that and it's great... that soon it will be our own Indigenous students who are doing all that research, not just western people, so it's great, thank you."

Discussion. The view from the literature presented in the literature review above is oriented towards aspects of Indigenous Knowledge and how to identify them, such as through story-telling, ceremony, certain practices like use of the Medicine Wheel, dance, song, prayer, knowledge of specific areas, environments, animal and plant behaviour and presence, etc., though not necessarily the values behind these aspects. From my conversations with interviewees who represent an Indigenous worldview or who have a good understanding of that worldview,

the values behind these expressions of Indigenous Knowledge can be generalized to respect, relationships, and reciprocity. It appears that almost all the physical aspects of expressing Indigenous Knowledge can be tied in some sense to these three principles. These three values are referred to multiple times over the course of the steering committee meetings, being reflected frequently in every set of meeting minutes. The example provided by Interviewee CTGT_040 above shows the typical representation of Indigenous Knowledge by Western scientists being treated as particular points on a map or being able to identify population numbers of certain animals, but it encompasses much more than that, as demonstrated by the responses of interviewees. This again shows the difficulty in presenting a rigid definition on Indigenous Knowledge. There are several common themes that can be derived from the interview responses, such as connection to land, being rooted in a specific place, the transmission of knowledge through story, inclusivity, consensus, as well as the above-mentioned values of respect, relationships and reciprocity. Along with these values being consistently expressed by interview respondents, they also make up several aspects of the C/TFN Elders Statement (2002), which is included in Appendix B, of which is referred to often by the steering committee, reflected in multiple meeting minutes. The Elders statement emphasizes respect of the land and all that the land provides. This respect is expressed through having a meaningful relationship with all other beings. The Elders statement also encourages respectful relationships with other people using the shared resources to be able to manage them respectfully together and to use the resources together. The Elders statement encourages the value of reciprocity in that it speaks to prescribing to the values the Elders have shared of using traditional activities to give back to the land and all

that it gives people for the benefit of the future generations in which will also be reliant on all the land gives (2002).

To what extent do interviewees think Indigenous Knowledge and values are included in this co-management plan?

This question generated some interesting perspectives from interviewees and a broad range of responses indicating the extent to which Indigenous Knowledge and values are included within the Tagish River HPA management plan as well as in other HPA plans and co-management plans in general. One particular point that was raised by the majority of the interviewees was the fact that Indigenous Knowledge and values may not be explicitly identifiable in the physical text of the Tagish River HPA plan (or in other HPA plans in general), but that the themes of the plan (and other HPA plans in general) are laden with values in which were derived from Indigenous Knowledge. Interviewee CTGT_010 stated, “the HPA process would very much so do that (incorporate Indigenous Knowledge) because it’s more collaborative, you’re sitting down in a committee, meeting on a more regular basis, and you’re jointly working on the wording to be incorporated into the plan and all parties have to be in agreement with the wording until the recommendation is sent to government.” When discussing a different HPA plan but relating it to the Tagish River HPA, Interviewee CTGT_010 stated, “each First Nation was still comfortable in providing the information; saying this is an important site to us, this is another one. It was an open forum, there was a certain level of trust built over time...so I think there was a certain level of comfort with the HPA’s and incorporating Indigenous Knowledge.”

Interviewee CTG_020 expressed the fact that the Tagish River HPA planning process was informed by Indigenous values since the beginning. On this point, Interviewee CTGT_020 stated, “For me I think I’m encouraged because when we look at the Tagish River Habitat Protection Area, the way we started off was the idea and principle of inclusivity, how do we be inclusive? And so initially what happened is it was only Canada, Yukon and the First Nations that had a representative but what we said was we need the community engaged, we need Renewable Resource Councils engaged, so the first question was how do we get more community engagement? The Renewable Resource Council at the table and that principle of inclusivity, many people were accommodating, they said yeah ok let’s do that, so it wasn’t exclusive like they’re not in the committee. And I think those are part of traditional values and knowledge, really focused around the whole idea of restorative processes in terms of some of the processes we use.” This demonstrates how some of the principles behind Indigenous Knowledge have been engrained in the planning process, such as inclusivity, gaining the community perspective, and using restorative processes encouraging reciprocity.

Interviewee CTGT_020 further reported that the principles of respect, reciprocity, and relationships framed the plan. Interviewee CTGT_020 stated, “So...we start saying if you base it (the plan) around the idea of respect, reciprocity, and relationships. So what we’re trying to include in the plan is this is the best way to respect the river, and what we’re doing is using traditional stories and teachings to start saying traditionally this is how we interacted with the river in a good way and with the animals, with the birds, and whatnot, and if you share that traditional knowledge in the educational piece, it gives the other Western participants or citizens a way to start looking at that plan.” This highlights some of the core values of Indigenous

Knowledge: respect, relationships, and reciprocity. It also shows how stories are incorporated as well.

Interviewee CTGT_050 preferred to answer this question more in relation to the planning process as it was expressed, similarly to what was mentioned above, that it can be difficult to just point to specific sections of the plan that encompass Indigenous Knowledge. Interviewee CTGT_050 discussed the fact that the plan was predicated on the Indigenous value of being dynamic. To this point, Interviewee CTGT_050 stated, “our conversations we’ve had around creating a plan that isn’t just going to sit on somebody’s desk that can be referenced every once and while, it’s supposed to more of a living, breathing thing that resonates with people when they read it, so when they look through it, it makes sense to them based on their experience on the land, based on their experience in the area.” This also demonstrates that the entirety of the plan must be relatable to the Indigenous people reading it.

Interviewee CTGT_050 went on to discuss some ways in which Indigenous values shape the plan. Interviewee CTGT_050 stated, “the predominant approach we’ve taken to try to incorporate that kind of Indigenous perspective in framing the plan on the Medicine Wheel and that’s taking the seasons and realizing how this planning area has different values in different seasons as there’s different things going on, the animals are using the landscape in a different way, the water levels are different, people are using the landscape in a different way, so thinking of the values and the required protection of that habitat from a seasonal perspective and layering that with all the different values, so I think thematically, that’s the biggest Indigenous influence on the structure and content of the plan.” This shows how the plan was framed in Indigenous values of following the seasons through use of the Medicine Wheel.

Interviewee CTGT_050 also presented an example of how this materialized in the plan. Interviewee CTGT_050 stated, “as an example, (name redacted, C/TFN Elder) will talk frequently about the north end of the Tagish Habitat Protection Area as being an important area for moose and their calves, so a post-moose calving area, so you’ve got adequate feed, protection, habitat adjacent to the water that they can duck into, cover, and that’s all based on frequent annual observations of cow-calf groups in that area. And so, if we were to design something specifically to protect that area with that interest in mind, I would say that’s a more discrete example of integrating traditional knowledge into a management implication. And so, in that explicit example, we don’t have something that directly addresses his comments specifically, but it’s more like an umbrella of minimizing disturbance, taking a close look at how it’s used, how we can distribute human pressure on the landscape, educational materials we can generate to demonstrate the values and the seasonality of those.” This demonstrates an example of actually integrating Indigenous Knowledge within management actions rather than just keeping them on the surface or as part of the background.

An interesting point was raised by Interviewee CTGT_060 on this question, as it was recognized that there was a good balance between Indigenous and Western Knowledge, but this was as a result of certain people being able to push for that and being able to articulate the importance of Indigenous Knowledge within the process. Interviewee CTGT_060 stated, “I felt like there was a very strong emphasis on having a balance between having kind of modern scientific knowledge and Indigenous Knowledge. Certain members of the committee...that wouldn’t let certain things move forward unless a certain Indigenous value or concept or vision was actually recognized”. An issue Interviewee CTGT_060 brought up regarding using

Indigenous Knowledge in environmental management plans is that it is difficult to represent knowledge that is typically derived from an oral history through a written management plan. Interviewee CTGT_060 stated, “it’s about representing the people through the text of that plan, which isn’t easy because it was never a written history, heritage or culture. I hope that we’re not changing the Indigenous Knowledge through the (written) text.”

When discussing the extent to which Indigenous Knowledge is represented in the plan and planning process, Interviewee CTGT_070 also spoke about the people being involved and how there was space to share that knowledge openly. Interviewee CTGT_070 stated, “The planning process, the people who have been in the room, we had (name redacted, C/TFN Elder) who is an Elder who has Indigenous Knowledge and traditional knowledge that he’s provided just by being there and being part of discussions, so it’s not just like we went and collected it....From the very start (the steering committee) has wanted to make this one different and the process and what the document would look like would be a more Indigenous plan, it would have a more Indigenous feel and Indigenous structure”. This shows how Indigenous Knowledge has made up the structure of the planning process, it has not just been minimized to an activity of collecting it during one point of the process.

Another point Interviewee CTGT_070 made was that though Indigenous Knowledge may not be easily overtly found in the text of the plan, it makes up the whole process and informs the recommendations. Interviewee CTGT_070 stated, “I guess when you look at it on paper it’s not a ton different, but I think that we’re hoping to see that in the plan and the information. I think what’s lacked in other plans is not understanding how to get the traditional knowledge and put it in, so often it’s dropped in and it doesn’t lead to why a recommendation is made and I don’t

think that's going to be the case in this one, I think it's going to be clear why and that it's based on traditional use of the area and what the First Nation would like to see and why".

The fact that Indigenous Knowledge is not just dropped into the plan in a certain section is highlighted by part of the discussion that Interviewee CTGT_070 shared when it was stated, "Yeah it's (Indigenous Knowledge) just in there. I don't like to use the word integrated because I feel like it's lost then, but I feel like it's just there, the voices, and it's clear. I struggle with the word, integrated". This shows that the use of the word integration is not even appropriate at this scale because the information was never integrated at a certain point in time, it just framed the process from the beginning.

Part of the discussion with Interviewee CTGT_070 encompassed the fact that it can be difficult to document the knowledge and values of an oral culture within a physical management plan, as was similarly expressed by other interviewees. Interviewee CTGT_070 discussed the perspective that it is indeed difficult to do this, but that a written management plan can still represent Indigenous Knowledge and values. Interviewee CTGT_070 stated, "I struggle too in my mind understanding that Indigenous Knowledge has often been oral, and trying to write it in the way that you're writing a formal government management plan is hard in how to be respectful with that information but also using it in a way so that when people read it it's not lost or separate....I don't think it's a limitation in that we can still reflect a voice there...it's hard to draft a plan that's broad for all different audiences, but that it's clear enough that it is traditional knowledge and is information that they're maybe not used to reading in a management plan. That's where it's been a little more difficult. And to do that in a respectful way. We have examples...(of other plans) where the plan does talk about the traditional use of the area and uses

the traditional knowledge that way, and then it has stories, but sometimes it feels like the stories are in a text box over here, it's separated. So, I think that this plan is going to look a bit different, and it's a good thing, but I don't think it will fit into the regular management plan style". This shows the difficulty in overtly representing Indigenous Knowledge to an audience who is used to classically written management plans, in that there will not be a separate section for Indigenous Knowledge, but that it will be ensured that Indigenous Knowledge is represented throughout the plan and management actions. The TRHSC also identified this as a difficulty in discussions as part of the June 14th, 2016 meeting, where it was recognized that some of the knowledge that was important to the plan could not be adapted to being written, such as demonstrations on how to process fish respectfully. This created the recognition that there may need to be alternate avenues for presenting this type of information, such as creating website materials (Tagish River HPA Steering Committee, 2016, p. 2).

An interesting point that was brought up by several interviewees when discussing this question was the fact that it was easier to incorporate Indigenous Knowledge within the HPA planning process than with most other co-management plans. The reasoning for this brought up by interviewees was the fact that HPA's are based on the understanding of conservation of important areas, which is an Indigenous value in itself. Because there was the feeling from interviewees that the HPA is already set up to coincide with Indigenous values, it is a fairly organic process to implement those values within the plan, or at least more so than co-management plans that have different mandates. On this point, Interviewee CTGT_010 stated, "the HPA's, it's collaborative, it's an ongoing process working together to ensure the HPA's are

being managed in a way that's agreeable to all parties and it's essentially a no development zone which makes protection of rights and interests much easier for the First Nations.”

One of the issues that arose out of discussing this question with interviewees was the fact that the way in which the implementation of the management plan is conducted can play a large role in determining the extent to which Indigenous Knowledge and values are represented, as certain knowledge and values could potentially be seen in the management plan itself, but it is in fact in the implementation of the management actions where those aspects need to occur. On this point, Interviewee CTGT_010 stated, “And that is another issue with co-management planning, is that it's at such a high level so it is difficult for any First Nation to commit to signing onto a plan when there's no real understanding on how it may be implemented or how those concerns may be addressed in greater detail by policies or other ways of implementing”. Interviewee CTGT_010 went on to state, “government's approach is to err on the side of caution, which I completely disagree with, but they're erring on the side of caution because they like to make plans that are very high level that can be open to interpretation. This is one of my main concerns with plans because they could be written in a way where one department could see the language one way, and another department can see the same language but have a different interpretation of what that means, so First Nation governments are knocking at the door saying these are our concerns in an area, and Yukon Government can say we have a plan to address those concerns, but that plan was designed to be open to interpretation”. This brings up a valid concern with co-management in general, as a steering committee can do their best to represent Indigenous Knowledge within the planning process and plan, but they are generally not the individuals responsible for the implementation of the management actions.

Discussion. Interviewees demonstrated a broad range of responses for the extent to which Indigenous Knowledge and values are represented within the Tagish River HPA and other HPA plans in general, though the majority of responses indicate that Indigenous Knowledge and values were and are included to a certain extent, though they may not be obvious. This is demonstrated through the perceptions of the interviewees through their involvement in the planning process, in that they are aware of where Indigenous Knowledge and values informed certain management actions or sections of the management plan. Much of the literature presented in the Literature Review section confirms the perceptions of the interviewees, in that Indigenous Knowledge and values can be represented in co-management if incorporated appropriately. The literature also indicated the concern brought out by some of the interviewees, in that it is in the implementation of the management actions where there is risk in losing the Indigenous Knowledge and values and where the Indigenous Knowledge and values appear to be more symbolic within the management plan. This concern was refuted by some of the interviewees though, in that they are confident that the management actions of the Tagish River HPA management plan have been informed by Indigenous Knowledge and values, and therefore the intent of creating them will not be lost through the implementation of them.

What aspects of Indigenous Knowledge do interviewees believe are included?

This question generated both specific aspects of Indigenous Knowledge and less obvious or less tangible aspects, as the Tagish River HPA plan, as well as other HPA plans, tend to encompass both as indicated by the majority of interviewees. The responses to this question were intrinsically tied to the responses from the previous question, concerning the extent to which interviewees perceived Indigenous Knowledge and values to be included, as the latter acts as an

extension of the former. Many similar points were raised, particularly that of the fact that the aspects of Indigenous Knowledge aren't necessarily reflected in the physical text of the management plan but make up a significant portion of the planning process and were reflected throughout the plan, just in ways that may not appear overt. Many interviewees also had difficulty in pinpointing exact instances where aspects of Indigenous Knowledge and values were overtly expressed for this reason. When discussing a different HPA plan but relating it to the Tagish River HPA plan, Interviewee CTGT_010 stated, "the way that the plan was written, again it was written at a very high level...it did recognize that the continuance of the use of the area would occur, but in terms of dealing with specific pieces of information that pertained to Indigenous Knowledge, the wording doesn't delve into the amount of detail that one might expect when you're talking about incorporating Indigenous Knowledge. It was again very much all-encompassing terms recognizing sense of place, subsistence activities, very high-level words in my view when you're talking about terminology that makes up Indigenous Knowledge". Continuing on this point, Interviewee CTGT_10 stated, "There was a recognition among committee members that the information shared (regarding Indigenous Knowledge) would be internal but would be used to make decisions on how the HPA management plan would be designed."

Interviewee CTGT_020 presented some specific examples of how the values of respect, relationships, and reciprocity take shape within the management plan. In regards to respect, Interviewee CTGT_020 stated, "So for example, some of the things we talked about is the best way to respect the fish in the river is to take what you need and use everything you take. So, we

put in the plan the idea of a recipe, how to cook fish head, how to cook the backbone, what you can do so that you actually use less fish but in a more focused way, that's a sign of respect."

In regards to reciprocity, Interviewee CTGT_020 stated, "Reciprocity, even a simple one, what we talked about is to try to incorporate ceremony, and so when the swans come in we encourage people, and we actually have done it, to do a ceremony with the river, which basically in our traditional way is making an offering and giving back to the river for all the river provides for us, we say some prayers, calling on the ancestors to work with it, and so you start to see those encouragements being incorporated into the plan which is more of that traditional knowledge type approach."

In regards to the relationship aspect, Interviewee CTGT_020 stated, "And in terms of the relationship, that ceremony starts getting people, because we encourage people to have a relationship. A lot of the Western philosophy is to de-humanize the environment so they're not our relatives anymore. When you de-humanize something, you do a lot of things to it you wouldn't normally do to human beings....So, we do stuff to the river, the birds, and the animals that we wouldn't do. So, the relationship is to restore, to understand that relationship between the river, the animals, the birds, all of these things is your relatives....So, what you do to the river, you're doing to your family, to your relatives. To me that's an important thing. You begin to...see that enter into the planning process and...the plan that's evolving." These examples demonstrate how the goals of the plan and the management actions that come out of it are based on these Indigenous values and knowledge.

Another example that was brought up by Interviewee CTGT_020 was that the steering committee has taken the seasonal approach to management, which is also a value rooted in

Indigenous Knowledge. Interviewee CTGT_020 stated, “The other thing that we started off with in terms of who participates in this process, the other thing we started looking at was to say what’s the framework or the concept in which we start wrapping the process. So, we started with a very traditional kind of approach, the seasons, we work with the seasons. Traditionally our lifestyle was following the seasons, how we moved with the land, how we inter-related with the land was about that movement with the seasons, and so that kind of concept we’re pulling into this planning process in terms of the framework.” In addition to the seasonal approach, this shows how relationships to the land were again highlighted in the planning process.

Interviewee CTGT_020 also discussed the example of using education over enforcement in the management plan and explained how that was derived from Indigenous values. Interviewee CTGT_020 stated, “Then we’re starting to look at some very key things, like a lot of times these plans will, and we struggle with it with this plan, about enforcement versus education. The colonial system tries to force people to follow laws and in order to make that system work you have to force people to do things. Traditionally it was about education, you educate people. So, when you look at colonial laws, which often times Western governments are currently using, the idea is that let’s make legislation, let’s pass regulations and whatnot, and let’s enforce them to force people to do that. And traditionally what we said is that you have to educate people, whereas the Western system ignorance of the law is a non-defensible argument, you have to be responsible to the law even if you know it or not. Traditionally we said no, people have to know the law, know why the law is there. So that’s an educational piece that we’re building into the plan. That educational piece, with the West we talk about enforcement, but we see it as the beginning of implementing these rules, regulations, this way of maintaining that

relationship with the river through an educational process. You still need a background regulatory process to implement them, but that's much more of a traditional type approach. More emphasis is put on education as opposed to the enforcement part, of who enforces the law, who enforces it, things like that. So, you're sort of seeing that shift towards more traditional practices." This demonstrates how the framework of the plan and planning process are rooted in the value of education over enforcement and the Indigenous values for expressing the importance of having a relationship with and showing respect to the river and the ways in which people prescribe to natural laws of the land.

When discussing aspects of Indigenous Knowledge reflected in the plan, Interviewee CTGT_040 spoke more generally about a different plan in which the interviewee was involved, but related that to the Tagish River HPA. One of the Indigenous values that was brought up was that of inclusivity. Interviewee CTGT_040 stated, "In terms of process, establishing true consensus-based opportunities for working on the plan and developing the plan. So, for example, in my experience we worked on a plan where at the table we had one representative of government, we had representatives from each of the three First Nations whose territory was being impacted by the plan, and then we also had representatives from the RRC's, the two RRC's involved, and then basically the person who wrote the plan was also there who was kind of a separate entity." This forms a similar structure to that of the Tagish River HPA plan, in that the First Nation and other governments are involved, as well as the Renewable Resource Council and the Tagish Advisory Committee, providing representation from the community.

Interviewee CTGT_040 went further to discuss the consensus-based process. Interviewee CTGT_040 stated, "And we had an opportunity to go around the table and everyone for every

section of the plan everyone had their say for what they liked, what they did not like, what words were appropriate and not appropriate, what sections were appropriate and not appropriate, what should be added and what was missing. And that really took us to the final plan. And having that, which is a very Indigenous approach, an opportunity for each person to have their say and speak their concerns without fear of being shot down and with those concerns being validated through their inclusion into the final draft.” This also represents the approach of the Tagish River HPA committee as can be seen in the minutes from each meeting, that every member at the table has an equal say and opportunity to provide input into the plan. The minutes demonstrate how the meeting itself is an open process, and there are also dedicated times at the beginning and end of each meeting where each individual at the table gets a chance to voice opinions and concerns. The particular meeting minutes from May 29th, 2015 reveal that the steering committee agreed to adopt a consensus-based approach (Tagish River HPA Steering Committee, 2015, p. 4).

Interviewee CTGT_040 also identified the importance of using story-telling in plans. Interviewee CTGT_040 stated, “So processes like that in the Yukon... a focus or need to focus on story-telling, and accepting the fact that stories are how Indigenous Knowledge is transferred. So those lessons on appropriate behaviour and respect, taking only what you need rather than being greedy, all of those lessons are taught to us through story, so really having a plan where the foundation lies in those stories rather than a foundation lying in a scientific model that has been developed. So, I think that that’s a really important value, and then using the science to support it, because like I said, in a conservation situation, the science will support those values almost all of the time.” Story-telling is an aspect of Indigenous Knowledge transmission in which all interviewees have also brought up in relation to the Tagish River HPA plan. Interviewee

CTGT_040 also shared some specific aspects of Indigenous Knowledge that are incorporated in the plan, including story telling and other aspects. Interviewee CTGT_040 stated, “From what I’ve seen with the HPA, there is a good incorporation of Indigenous Knowledge, I know there’s stories shared in there, I know there’s recipes in there so that we can show the idea of not wasting and conserving through sharing and all those sorts of things. So, I think that those are great things.”

Interviewee CTGT_050 also raised the point that it is difficult to point to specific aspects of Indigenous Knowledge within the plan, but rather that the whole plan and planning process is informed by Indigenous Knowledge and values. Interviewee CTGT_050 stated, “When I think about more specifically how Indigenous Knowledge is being integrated I think we’ve definitely struggled with discrete examples. I think when the plan is done you’re going to have a pretty comprehensive introductory component that describes that traditional use of the area as a meeting place, why it’s named Tagish, who used the area, into more contemporary times, and kind of the Western influence. And so that content will be there, but what I struggle with is that Indigenous Knowledge? That seems to be facts, this is how that area was used and not that Indigenous Knowledge and facts can’t be one in the same, but it seems that more of this is the historical account of what happened here, is that traditional knowledge? I struggle to see if that fits. I would be more interested in us designing management recommendations that are based on some piece of knowledge that was shared”.

With the understanding presented by Interviewee CTGT_050 that it is difficult to point to specific aspects as a result of values being woven into the plan, Interviewee CTGT_050 was also able to point to some specific aspects. Interviewee CTGT_050 stated, “components that I think

will help the plan read as a co-management plan will be, other aspects will include story-telling components, which will help ground the current Tagish in its historical view by the First Nation, so it will be some of that, there will be some recipes of how different fish parts can be used, getting at that using everything and wasting nothing and I think another component that you wouldn't see readily in a Western scientific-based plan is the notion of spirituality and ceremony, so there's also an attempt to bring that component of the culture into respect and appreciation of the area." As is demonstrated by this point, there are some tangible aspects of Indigenous Knowledge that will be readily seen that come from the values of respect, reciprocity, and relationships, but that the majority of the plan is informed by Indigenous Knowledge and values less explicitly.

Interviewee CTGT_060 expressed some similar aspects of Indigenous Knowledge intended to be part of the plan. Interviewee CTGT_060 stated, "but part of it was look at the plan seasonally for the River and then through the different seasons to incorporate recipes and hunting stories and stuff like that which I've never seen in a Yukon plan before. So that's a way of Indigenizing it is actually taking some of the local knowledge about the Tagish River and incorporating stories into it". This shows again some tangible aspects of Indigenous Knowledge being incorporated through stories and recipes, as well as the Indigenous values of using the seasonal approach.

Interviewee CTGT_070 provided the example of ceremony in discussing how Indigenous Knowledge and values are utilized within the planning process. Interviewee CTGT_070 stated, "we've tried in our engagements with the public to not do just standard public meetings but to do

a fish ceremony or do a meeting where we all went down to the river, and the swan ceremony and those things that are a little bit different.”

Interviewee CTGT_070 also demonstrated how specific aspects of Indigenous Knowledge may not be overtly stated within the management plan, but that they will be used throughout to inform why certain sections are written as they are and why management actions have been created. Interviewee CTGT_070 stated, “The idea with the plan is to infuse it with traditional stories, but not just over on the side, to try to integrate them into the text as to why they got into the policy or the recommendation, and I think that comes back to Indigenous worldview. The plan is supposed to be a reflection of the connection that Carcross/Tagish people have to the area, and taking that and the connection that you have to land, and making that go to the policy or recommendation, instead of it being what you see in other plans which is the statement of the value, the recommendation, then the story over here about something that’s related. It’s more taking the values or virtues from the stories that Carcross/Tagish has already recorded and linking them to why we got to where we got to because that’s kind of what those stories have in them and then integrating them in so that it’s really clear on why we got to where we got to”.

Interviewee CTGT_070 further explained this point when it was stated, “There’s also the structure in the plan that’s a little bit different to the other ones in that the whole front end of the plan has the background and typically has the why this area is important piece is going to be the main management plan and is going to be focused on education and just kind of an account of the story of the Tagish River in itself and the feelings that you get when you’re there and the connection to land that aren’t just a First Nation point of view...a lot of people that live there

aren't First Nation but have a similar connection, it's trying to connect people to that point as to why we want to protect it". This shows how there is more of an integration of the values behind the connection that both Indigenous and non-Indigenous people have to the Tagish area, and the plan intends to harness that in order to protect the area.

Interviewee CTGT_040 offered some insight into what not to do when attempting to incorporate Indigenous Knowledge and values into a co-management plan. Interviewee CTGT_040 stated, "you can tell the difference when it's (Indigenous Knowledge and values) the foundation of it and when it's just been thrown in separately, and a traditional knowledge study shouldn't be a separate thing to a plan. It shouldn't be an afterthought, it shouldn't be a separate thing, if you are engaging and co-managing the program with First Nations, then that should be obvious because it should essentially flow throughout the whole document if that has actually happened, if that engagement and co-management and actual co-development of that plan is actually happening and not just government or someone developing a plan and then consulting the First Nations on it".

Discussion. The responses generated from this question were very similar to the responses to the question posed before it regarding the extent to which interviewees perceived Indigenous Knowledge and values to be represented. They relate closely to some themes presented within the literature that it can be difficult to represent Indigenous Knowledge and values within a written management plan, but the responses go further than this to show how it is still possible to do this in a meaningful way. Some of the examples provided by interviewees, including taking a seasonal approach, emphasizing education over enforcement, sharing recipes

to encourage respect, conducting ceremony to encourage reciprocity, encouraging inclusivity and consensus, and the use of story-telling are all based in Indigenous values.

What are/were interviewees hopes and intentions for including Indigenous Knowledge in this management plan?

This question generated multiple responses from interviewees, and were sometimes different depending on the organization in which the interviewee was employed. This at times was shown through responses where it was discussed that the hope and intent was really just to ensure that Indigenous Knowledge and values were represented to the satisfaction of C/TFN committee members and general citizens. Other specific hopes and intentions also shared, generally around the concept of utilizing Indigenous Knowledge and values as the foundation for the planning process and management plan, as well as other considerations discussed below.

Interviewee CTGT_020 expressed that the hope for including Indigenous Knowledge and values is really for the inclusive nature of having all people in the Tagish area be able to benefit from Indigenous Knowledge. Interviewee CTGT_020 stated, “what some of the hope is, is that Western governments and Western people begin to, if you wish, adopt more Indigenous thinking, Tagish/Tlingit thinking. And to me part of the hope of that plan is to say yeah, we want to ensure that we’re looking after the environment in such a way that our relatives the swans, migratory birds, the moose, caribou, the fish, the finned ones, the four-legged, the winged ones, all work in harmony with the two-legged....So that to me is the intention. So, a lot of the Indigenous Knowledge, values, ceremonies, procedures, are not just good for Indigenous people, they’re good for all people. So, if we start seeing use of ceremony by all people for that relationship with the river. How we call recreation is to re-create the soul and the spirit, that’s why we call it

recreation, Tagish is a huge recreation area, so it's not about quashing recreation, it's actually encouragement, how do you re-connect, how do you re-create your being, and that's what we want to see is all people doing that. We're beginning to start looking at greater populations, so you want to see the populations be cognizant of the area, the wildlife, to create a space for that, but yet live in harmony if you will. And I think what's really important is that our teachings aren't just good for us as a people, but good for all people. And if you begin to start seeing these processes being incorporated into contemporary governance structures, that's a good thing." This shows how this planning process, and the people working as part of the process, do not wish to enforce separation between Indigenous and non-Indigenous people, but to meaningfully integrate the knowledge systems for the benefit of the Tagish area and the people who live there – Indigenous and non-Indigenous.

Interviewee CTGT_040 emphasized the fact that the intention of including Indigenous Knowledge and values in co-management is for these to be foundational to the plans and planning processes. Interviewee CTGT_040 stated, "I think the most important thing is that the Indigenous values need to be foundational in order for them, in my opinion, to actually be considered a collaborative project...it's really about having those things as being the guiding, the things that guide the plan."

When discussing intentions for including Indigenous Knowledge, Interviewee CTGT_050 stated, "I think that is exactly the hopes and intentions, it's that we have an inclusive process that considers all sources of knowledge, all the knowledge holders, and crafting management directions from that. Not putting the blinders on and following what those few records of quality data say but being able to compare that to once upon a time when the town on

Tagish didn't exist and the Western influence wasn't there, this is what this area was used for, these are observations from that time, it's a real change in how you perceive what you're trying to manage". This shows that the intent was to foster the Indigenous values of consensus and inclusivity to ensure that other values and knowledge were integrated within the plan. When further discussing this point, Interviewee CTGT_050 stated, "it won't be this is traditional knowledge and this is how we used it. When I think about the structure of the steering committee...the intent is to have those representatives and their respective knowledge and their mandates come together and create a management plan that weaves together those different, values, components, legislation, programs, it's to resource it effectively with those different government's staff and program areas, so when I think about it like that I think the plan is going to do a nice job of that, it will be weaving, it won't say on this page here is all the traditional knowledge that we learned about and everything that came out of it, it will be more thematically woven through the structure and those various pieces kind of feeding into the recommendation structure." This shows how the inclusive nature of using all information from all sources to represent the perspective of all people living in the Tagish area was a main intention of including that Indigenous value of inclusivity.

Interviewee CTGT_060 reported that one of the intentions of the drafters of the plan is to convince people reading the plan or being affected by the plan that Indigenous Knowledge does represent sound data. Interviewee CTGT_060 stated, "I think part of it is just understanding, the average joe understanding that oral history, stories, and even to a certain extent legends that you hear are data".

When discussing the aim of the plan, Interviewee CTGT_070 emphasized the fact that all people have a connection to the land in Tagish, and that the plan attempts to integrate the value of connection to the land that both Indigenous and non-Indigenous people share, and try to create educational tools and management actions based on the balancing of those shared values.

Interviewee CTGT_070 stated, “Yeah and just connection going back to the connection with the land, and I think an important piece is that the management plan isn’t supposed to be a management plan for the area but for the people because the area doesn’t need a management plan it’s the people that do. Tagish is unique in the dynamics that are there because people live there and it’s heavily populated compared to other HPA’s, people that live there and are not First Nation probably have pretty similar values that we’re trying to pull together so that it doesn’t feel like it’s just one view because it is supposed to be a broader based management plan. So, it’s a balance, my goal is that when somebody reads it they can connect with it no matter what, but also more importantly, that Carcross/Tagish citizens can read it and feel their voice is represented through it. That’s the aim.”

Interviewee CTGT_070 also discussed the intention behind including Indigenous Knowledge being that of having it incorporated throughout the whole plan and process.

Interviewee CTGT_070 stated, “And to feel like they’re (Indigenous Knowledge and values) not just secondary or plopped in, to be really part of the discussion on why we got to a recommendation”.

Another interesting intention that Interviewee CTGT_070 reported was that of taking a holistic approach to other initiatives being conducted in the area. Interviewee CTGT_070 stated, “they’re (C/TFN) doing their Indigenous land use planning and the Tagish area is a small part of

their traditional territory, so there's a hope too that it fits in with that or compliments it, but to not have the Tagish River plan over here that doesn't really fit in with the broader landscape.”

The concept of inclusivity and representing all voices in the planning process comes up very often in the TRHSC meeting minutes. The minutes from the first meeting of the steering committee on April 27th, 2015 reflect this concept, in that the steering committee discussed the concern of some people not having their perspective represented, with the solution being including the Tagish Community Advisory Council and the Carcross/Tagish Renewable Resource Council as observers in the process (Tagish River HPA Steering Committee, 2015, p. 2). It is also reflected frequently in the majority of the meeting minutes that it is important to involve all perspectives of the community of Tagish. In the July 2nd, 2015 meeting minutes, a list of stakeholders in which to engage and involve in the process is created to ensure all perspectives are included (Tagish River HPA Steering Committee, 2015, p. 6).

Discussion. The Indigenous value of inclusivity was highlighted frequently by a majority of interviewees, expressing the hope of using the value of inclusivity would encourage all people living in and using the Tagish area to prescribe to other Indigenous values as well as be appropriately represented within the plan. Using Indigenous Knowledge and values as a foundation for the planning process and plan was also an intention reported by respondents.

Are Interviewees satisfied with the extent to which Indigenous Knowledge and values are included in this co-management plan?

This question generated a broad range of responses as it is very much based in the personal opinions of the interviewees, rather than the objective facts behind what is included in the management plan. The majority of interviewees were not necessarily able to provide a simple

answer of yes or no, but felt varying degrees of satisfaction in regards to the extent that Indigenous Knowledge and values are included, or did not necessarily know at the point of the interview if they were satisfied or not. When discussing the satisfaction level for a different HPA plan but relating it to the Tagish River HPA plan, CTGT_010 stated, “I think the HPA does a decent job of covering Indigenous Knowledge at a high level, I totally agree with that, but as I said earlier, I’m always pondering how will we ensure that this is being implemented through the right means amongst the governments.” It appears by this comment that the interviewee is fairly satisfied with the extent in which Indigenous Knowledge and values are represented in the plan at a high level, though still weary about the way that management actions which were informed by Indigenous Knowledge and values would be implemented.

When discussing the level of satisfaction with the extent to which Indigenous Knowledge and values are included in the Tagish River HPA plan, Interviewee CTGT_040 stated, “in general I think there’s been a great inclusion of Indigenous Knowledge, in particular, inclusion of story and sharing of traditional recipes that really show the undercurrent of the values of reciprocity and no waste and that sort of thing, I’m pretty sure it’s fish head stew that the recipe is which is all about making sure you use all parts of the fish, out of respect for the fish you use everything, that you don’t waste any parts of it, and that’s that traditional value. So, in general I think that it’s a great step forward and there’s lots of great things, and I know that the table has been very inclusive of the Nations and that there’s Elders stories and whatnot which is refreshing”. This comment was premised by one particular concern affecting the satisfaction of CTGT_040 though. This concern was expressed by Interviewee CTGT_040: “I think in the draft being more of an understanding of the land and how it was traditionally used would be of

benefit. I think the area is protected primarily because of the swans and stuff and those protections may or may not limit traditional use, and I don't know how much modern traditional use of swans and stuff there are, but traditionally migratory birds were a springtime treat and their eggs provided and I'm sure they ate the birds as well, so having a protection area protects the habitat, and under Indigenous values you protect the habitat so that the animals can thrive and continue to provide, but as soon as we start implementing Western legislation on that, that's not allowed anymore. So now it's protected and nobody's allowed to touch them, nobody can go in there and do stuff. Better to do that than go the other way but at some point, there needs to be a recognition of traditional methods of hunting and collecting and whatnot were done in a way with conservation in mind." The issue of protection limiting traditional activities was also reflected in the meeting minutes from April 27th, 2015 where there were questions raised on the rules around harvesting swans again, as it has been done traditionally before regulations were put in to limit this (Tagish River HPA Steering Committee, 2015, p. 4). More consideration was given to the point on how traditional harvesting methods encompassed by constitutionally protected Aboriginal rights will influence management actions was also discussed by the TRHSC as part of the November 28th, 2016 meeting (Tagish River HPA Steering Committee, 2016, p. 3).

Interviewee CTGT_030 was fairly satisfied by the way in which Indigenous and Western perspectives were brought together within the planning process and plan, but did offer some advice in ways to be represent Indigenous Knowledge. One area that Interviewee CTGT_030 would have liked to see improvement in is including a more diverse range of people participating in the process. Interviewee CTGT_030 stated, "Well I think we could do more to involve Elders'

participation, all age groups, you know women have certain values and so forth that they could be expressing here, use of the land, use of ceremony...it involves all age groups”.

Interviewee CTGT_050 presented an interesting perspective when discussing satisfaction with the extent to which Indigenous Knowledge is represented. Interviewee CTGT_050 stated, “I don’t know if I’m satisfied. When I think about what we’ve talked about so far and the efforts we’ve made to weave through, I would still like to see some overt use of TK, like to see it more overtly represented. Maybe that’s indicative of where we are...I guess I do have some kind of worry at the end of the day we’ll get this plan signed and that five years down the road we’ll look back and say we missed this piece or it would’ve been nice if we knew to put this piece here, whatever. So I guess I have a little bit of trepidation saying that I’m satisfied right now, generally I’m gauging my satisfaction generally on the feedback I’m getting and generally the sense of satisfaction that the First Nation members are bringing and so when we go around the table and we talk about things we think are outstanding or where this currently sits, typically they’re content with the content, so that gives me some satisfaction, it acts as a bit of a barometer for me, but I’m still wanting to see it a bit more overtly described.” Interviewee CTGT_050 went on to this point when it was stated, “in this sense of things (with the HPA) we’re trying to articulate values, we’re using various types of knowledge to guide the recommendations, it’s just a little bit more abstract and less concrete. And so that’s why I partly answer, like I’m in the middle somewhere of not quite satisfied but definitely have some satisfaction.”

Interviewee CTGT_050 presented an example of a way in which to overtly see Indigenous Knowledge as part of management through a different program. Interviewee CTGT_050 stated, “when I think about a few other program areas where we integrate traditional

knowledge, like the moose population modelling we're doing now, where it's more...using the local and traditional knowledge as predictors of moose abundance, so it's a really overt way to say...you told me this, and I put it in the model, and based on that and these other pieces we're able to predict moose abundance at this level." This example appears to be a more overt way in which to provide feedback back to Indigenous people that their knowledge is being used in management.

Interviewee CTGT_070 shared some similar feelings to that of Interviewee CTGT_050 where it was difficult to gauge the level of satisfaction. Interviewee CTGT_070 stated, "I think I will be if some of the next steps work out. Sometimes...I feel a little uncomfortable in it, but I know there will be a big review process of it, so I get a little nervous in putting someone else's history down and then presenting it to them, but at the same time trying to be respectful and do what we need to do for the management plan side of it also. But I have really high hopes for this plan being kind of a template for future plans or at least in that direction. I think we've been doing that in the last little bit with plans, making them less rulebook, short and sweet, and trying to capture the cultural connection and history which is essentially why HPA's are made and are in the land claims. So that's the hope that this plan could really be used in other cases if it does the job. And I think we're going to find that out by taking it back and seeing what people think of it, both Carcross/Tagish citizens and Tagish residents, so it's trying to strike that balance".

This demonstrates a perspective of gauging the level of satisfaction on what stakeholders believe, the majority being C/TFN citizens. This also shows the inclusivity of the process being that of really making sure the community is satisfied.

Some additional criticisms of the way in which the Tagish River HPA process works were offered by interviewees in regards to co-management. Interviewee CTGT_040 particularly argued the fact that recommending a plan to one government's Minister did not represent true co-management. On this point, Interviewee CTGT_040 stated, "I think that that's a common issue, that this is not even co-management in my opinion, there's these attempts at collaboratively working together to establish these plans, but in the end the decision still goes to YG or Canada as the case may be, it just goes to and has to be approved by a minister that's above, the Nations don't have that, it's not true co-management. We've already said that it's ok, your people have already said that it's ok, why do we you know?" Interviewee CTGT_020 also expressed a critique of the co-management system in relation to the Tagish River HPA. Interviewee CTGT_020 stated, "One of the things we're finding, and that's one of the things we're talking about in the plan, is this idea of how do we start developing joint legislation? How do we hold each other accountable as governments? And that's why this idea of joint legislation, and what we're finding out is the Western form of government structure is not necessarily a sustainable form of a democratic system. Every four years there's a change in leadership and policy and you see legislative changes. And so, a lot of the times what happens with our treaties and their processes is that we recommend this plan to a minister or government to implement. And then they can cherry-pick and start choosing what to do and whatnot, so to me that's a weak part, because true co-management and co-governance, which pushes even beyond management, because on one hand we have input into management, but the decisions are still being made on this level without shared decision-making, it's not true co-management." This represents an important critique to the common co-management structure. The point remains that Interviewee

CTGT_020 made, that the satisfaction may not be as high as it can be because of the structure of the co-management system not lending itself to the ultimate decision-making. This concern is reflected in the TRHSC October 13th, 2015 meeting minutes, where a discussion is held on the utility and likelihood of being able to make changes to legislation, where it is recognized that it is much easier and likely more practical to make changes just to policy instead (Tagish River HPA Steering Committee, 2015, p. 3). The critique was also expressed by Interviewee CTGT_060 when it was stated, “why is it just the Minister? Why isn’t it the Minister (and) the Chief?...it all relies on one person who probably never goes to those areas, so I mean with co-management you would have two parties agreeing, that’s my vision of management anyways”. This concern is also reflected in the meeting minutes from the first meeting of the steering committee on April 27th, 2015, in that there needs to be agreement from governments on what issues the steering committee can and cannot realistically address, the issue raised being that of putting time and effort into a management plan then not having the government accept it (Tagish River HPA Steering Committee, 2015, p. 2). This is not to say that these interviewees were not satisfied with the extent to which Indigenous Knowledge was represented, but that there was some uncertainty and criticism of the structure of the co-management system which affects the satisfaction level regarding the process.

Discussion. This criticism of recommending the plan to one government’s minister was not necessarily shared by all interviewees. Interviewee CTGT_070 expressed the fact that the process has been very inclusive and would likely not come to a point where a decision from one party’s leadership would be necessary. Interviewee CTGT_070 stated, “I think kind of the same thing with HPA’s that even though it does (need to be recommended)...in this case and in most

HPA's we don't get to a point where we're saying only one person needs to sign it so they're the only person we need to get this through to, it's always we need to go the whole way together, so at this point I don't think so". Interviewee CTGT_040 did share some of those same insights as well though, in that it may not always represent an issue within specific planning processes. Interviewee CTGT_040 stated, "it (recommending a plan to a minister) would only become a hindrance if that minister were to refuse or I guess similar to what happened to the Peel, that's where it starts getting to be a hindrance. It's when that governance structure that's in existence fails to acknowledge all of the work and the consensus and all that has gone into the development of the plan. Which...we've seen happen very recently, and that's exactly where the frustrations from the Nations come from. It's not only that it's been rejected, but there's a failure to acknowledge the amount of time and the amount of people who have been involved and the amount of knowledge that has been shared".

This question brought about a wide range of responses because the nature of the question is very subjective to the opinions and perspectives of the interviewees, as well as opinions that were not necessarily shared by all interviewees. This makes it difficult in linking the responses to the literature, considering most of the literature discusses co-management in general, or does not go as far in depth in actually gathering information on the satisfaction levels of stakeholders within management plans. The literature presents cases in which stakeholders would not be satisfied with the extent to which Indigenous Knowledge is represented, such as if it is simply just a section detailing Indigenous Knowledge that is inserted into an already Westernized plan. This point was brought up by the majority of interviewees as being an issue within typical co-management plans, but as one in which the steering committee has attempted to avoid. In

general, the interviewees tended to be fairly satisfied with the extent to which Indigenous Knowledge and values are represented within the Tagish River HPA plan, though each interviewee still had issues or suggestions on where it could be improved.

What do interviewees consider to be the role of Indigenous Knowledge and values in this co-management plan and/or co-management plans in general?

The point was made by several interviewees that Indigenous Knowledge and values are what guides the HPA planning process. Some of these responses represent similar themes to those generated by the question on interviewee's intentions to represent Indigenous Knowledge, particularly that of Indigenous Knowledge being the foundation for management planning. Interviewee CTGT_010 stated, "recognizing that Indigenous Knowledge is part of the HPA planning process and the creation of management plans, it very much guides that process. It guides the development process".

Some other points brought up by interviewees were that the role of Indigenous Knowledge and values is simply to incorporate those values to encourage sound and sustainable management. Interviewee CTGT_030 discussed the fact that the role of Indigenous Knowledge is that of encouraging respect and relationships with other beings. Interviewee CTGT_030 stated, "Well the roles of how people conduct themselves, First Nation people, how we're advised to conduct ourselves I guess prior to all these other institutional practices that were imposed. There was a lot of teachings that relate to respect and values, how to value each other, and contribute to everyone's well-being. Respecting everything like the seasons and the planets and so forth...we're related to everything, the birds, and all, and that provides for a certain respect for everything, not just the two-legged." Interviewee CTGT_030 also expressed a certain

responsibility that Indigenous peoples have in sharing Indigenous Knowledge within environmental management, as there is the opportunity to do so where there typically was not before. Interviewee CTGT_030 stated, “finding ways now, you know, with higher learning, getting up to the levels we need to be to be true co-managers because we’re not afraid to speak out and not afraid to answer the questions even though we may not have the best answer but for a long, long time that hasn’t been the case.”

Interviewee CTGT_020 shared some similar points, in that Indigenous Knowledge plays a role of ensuring sustainable practices. Interviewee CTGT_020 stated, “we design our laws around the idea that you’ve got to be using it, if you don’t do a certain amount of development on this property you’ll lose it. And that’s not a sustainable practice. And so that kind of practice has to change. When you begin to start looking at Indigenous kinds of practices, and this is why I say around matriarchs and whatnot, they used to leave things to seed. They’d say look at that area is over-harvested, we just need to leave it to seed, so we’re going to trap or hunt in a different area. So, it became, and we sort of do it today, is what happens is that they were managing, they were looking at that environment. Then the question is the First Nations have said we’re not opposed to non-renewable resource development, mining, these types of things, but not at the expense of the renewable resources, not at the expense of the animals, the fish, the trees, so somewhere there has to be that balance.” These statements demonstrate how the typical Western way of managing natural resources in an exploitive manner is not sustainable, and that Interviewee CTGT_020 feels that Indigenous Knowledge and practices can ensure sustainability and the balance between exploiting and protecting natural resources.

Similar to the point shared by Interviewee CTGT_010, Interviewee CTGT_040 brought up the fact that Indigenous Knowledge must be the foundation of co-management plans. Interviewee CTGT_040 stated, “Ideally the role of it would be to guide all of it. Like I said, Indigenous values and traditional law has ensured the survival of the people on the land for thousands of years in such a way that there was abundance of wildlife, fish, aquatic resources, all of those things, the water and the earth provided all those things that were needed by following these laws and traditional practices which is what Indigenous Knowledge embodies. So ideally, they would be the guiding principles for all management plans in terms of managing the land and the resources and that sort of thing... Ideally it would underlie and be the foundation for every management plan because in my opinion it’s appropriate, and like I said at the beginning, Indigenous Knowledge is rooted in the past, but it’s not stuck in the past, it allows for evolution and movement forward because the values are so obvious, almost common sense, don’t take more than you need, respect everything, use everything, those kinds of values are not stuck in time, they’re dynamic, they can move forward, those values are still completely relevant today as they were two thousand years ago....If it could be foundational in every plan, that would be awesome.” This point also demonstrates the values of sustainability in Indigenous Knowledge. The concept of guiding principles being informed by Indigenous Knowledge and values is reflected in the meeting minutes of the TRHSC from April 27th, 2015, where it details the fact that guiding principles should be based on the needs of future generations, inclusivity, respect, aspects of the Medicine Wheel, as well as a seasonal approach (Tagish River HPA Steering Committee, 2015, p. 3).

When discussing the role of Indigenous Knowledge in co-management, Interviewee CTGT_050 stated highlighted creating a balance and inclusivity. Interviewee CTGT_050 stated, “I would just say that considering the role of Indigenous Knowledge, I see that as balancing out the contemporary information. So, information that the...government has is typically in the thirty to forty-year-old realm, a lot of (the) data collection programs started in the 70’s or 80’s or even since then, and so we have this tiny little snapshot in time to find out what’s going on in that area, and the Indigenous Knowledge has that millennial, or could be more than millennial, it covers a much larger time span. And so, the role of it, there’s almost a verification process that happens with other data that’s been collected, and it’s to expand it and it’s kind of that inclusivity piece...it’s basing your management decisions and recommendations on a complete picture instead just a small fragment of that which may have been captured by the more empirical side of things.” This point demonstrates that one role of Indigenous Knowledge in co-management is to bring the holistic approach to decisions to get a wholesome picture of what is and has occurred in an area. This concept is reflected in the August 12th, 2015 TRHSC meeting minutes where a discussion is held regarding the traditional use of the area and sites historically and how those practices have changed and adapted to current times, showing a baseline being framed in Indigenous Knowledge of the area, rather than starting from the current date or from when the scientific data for the area became available (Tagish River HPA Steering Committee, 2015, p. 2).

Another role in which Interviewee CTGT_050 discussed was that of ensuring buy-in from First Nations. Interviewee CTGT_050 stated, “I see another role as, and this is kind of on the inter-governmental side of things, but I see the buy-in as a large role. And so if the First Nation government has been involved in this process and hold up a plan that they back and

support because it includes the knowledge that they shared, then they're going to want to implement that, they're going to use that as an example to show to others, and so it helps with the relationship with the First Nation, and it also helps you mutually achieve the goals that are described, the objectives that are described in the Final Agreement." This point shows that taking the inclusive and consensus-based approach ensures that all parties can be happy with a management, which are based in Indigenous values. The emphasis on gaining buy-in as a result of inclusivity is reflected in the meeting minutes as well, as early as the May 29th, 2015 meeting (Tagish River HPA Steering Committee, 2015, p. 2).

One of the roles of Indigenous Knowledge into the plan identified by Interviewee CTGT_060 which is related to the previous point made by Interviewee CTGT_050 regarding buy-in, was that of encouraging people to actually read, understand, and utilize the plan. Interviewee CTGT_060 stated, "the First Nation felt that by incorporating traditional recipes, hunting stories, that it may make it more readable....I think if you open up a plan and you see recipes and stuff, you're likely going to want to turn the page. And even if you don't read the policy section, you'd hopefully still get what the plan is trying to achieve out of those stories and those recipes." These points also demonstrate how invested the planning parties are into getting people to actually use this plan in their lives. Making the plan readable by incorporating Indigenous Knowledge and values through story and recipes was highlighted by the TRHSC during early talks regarding the format of the management plan, as is reflected in the January 12th, 2016 meeting minutes (Tagish River HPA Steering Committee, 2016, p. 3).

Interviewee CTGT_060 also expressed the point highlighted by other interviewees, that Indigenous Knowledge should be the foundation of the plan and planning process. Interviewee

CTGT_060 stated, “Well I think it has to be the foundation of plans...so I think taking First Nations knowledge, Indigenous Knowledge, as the foundation of it”.

Interviewee CTGT_070 shared this perspective, in that Indigenous Knowledge should be the foundation for the plan. Interviewee CTGT_070 stated, “I think in the context we work in in Yukon it should be an equal voice in all things that we do, especially in fish and wildlife management....I think the nice part about HPA’s like we mentioned is that they can really be infused and that the reason for them is clear and that Indigenous Knowledge could be all of the information you have as to why that area is like it is. My personal opinion is that Indigenous Knowledge should be equally weighted and in some cases more highly weighted to reach decisions.”

Discussion. The point made by the majority of interviewees that Indigenous Knowledge and values guide the HPA planning process is likely informed by the earlier point made by interviewees that HPA’s are already based on the framework of Indigenous values of conservation. This would innately lend itself to the planning process being informed by Indigenous Knowledge and values because it is already understood to represent the value of conservation through the HPA mandate. The literature presented in the Literature Review section does not seem to delve into assessing environmental management plans to determine what their core values are, and if those values are consistent with concepts found in Indigenous Knowledge and values. While the literature does discuss the role of Indigenous Knowledge and values and their important contribution to environmental management and sustainability, the discussion seems to be on a different level than that of the interviewees’ responses. The interviewees all already had a predetermined notion that Indigenous Knowledge and values are important

contributors to, or make up the essence of, sustainability and environmental management, where the discussion in the literature is based more on demonstrating how and if Indigenous Knowledge and values contribute to sustainability.

Other Insights

The point was raised several times by interviewees that the HPA structure represents co-management in a way that is more conducive to incorporating Indigenous Knowledge.

CTGT_010 discussed this frequently, where it was stated, “but what I can say, if I may, is that Habitat Protection Areas are a great tool and a great example of how co-management was intended to be effective. Sure, it doesn’t cover the concept through devolution, how it was originally presented where co-management decisions would be made on many other activities on Traditional Territories such as mining and forestry, but it is a good start. It provides essentially the flora and fauna and any species in the area the opportunity to be protected in sustaining populations.” Another point brought up about how HPA planning processes do represent a good example of co-management by Interviewee CTGT_010 was the statement, “The other thing too is that I’d really like to see HPA’s, I’d like to see more Yukoners made aware of HPA’s and really like to see the Yukon celebrate HPA’s as something that we can really be proud of because as we’re seeing through devolution, the co-governance approach hasn’t really happened. So, with HPA’s, this is one process where I feel like people were actually working together, there was a mutual understanding, every word of every bullet point in any particular section was being discussed and agreed upon, so I think we need to celebrate HPA’s more and have people understand what they are and what the purpose is.” This point was also discussed several times by Interviewee CTGT_040. Interviewee CTGT_040 stated, “particularly with a Habitat

Protection Area because the purpose of that is conservation essentially, and conservation, maybe not the modern idea of conservation, is at the heart of most traditional values. The purpose of trying to teach us how to respect the land and the water and how to respect and accept the gifts that we're given from Creator, the whole purpose of that is so those gifts and understanding continues for generations and generations to come, that's inherently conservation. We learn not to take more than we need so that there are things to be taken and given in the future. That's essentially what conservation is or should be at least. Inherently traditional values and laws should fit within the values and directions of especially a conservation plan or a habitat protection plan." Interviewee CTGT_070 also discussed this fact when it was stated, "it's (the HPA process) an example of where co-management can happen really well and I think the term co-management is difficult in Yukon because treaties lay out a process that I don't know if you would consider it co-management or not in some circumstances."

Interviewee CTGT_030 emphasized how important it is to have proper Indigenous representation as part of co-management. Interviewee CTGT_030 stated, "Well I see that it's really important to have our first peoples' point of view, history, knowledge expressed by the local people because they know the most about the area and how it was used long before non-First Nations people came to the area. There's a really interesting story about how that process started. There's the Gold rush, there's White Pass, there's the Alaska Highway, all sorts of ways that people came into the area, but we have the knowledge of what it was like before. I see that it's really important because we are talking about co-management, but it's really our settlement process involved here, and I think we have been given the responsibility by the negotiators and by governments and by our First Nation parentage to be part of the process."

When discussing the concepts of co-management and co-governance in general, Interviewee CTGT_020 provided some insights into ways Indigenous peoples can be better represented in management and to change the current systems. Interviewee CTGT_020 stated, “I think we have to be like the water now in terms of the younger people and looking at systemic change, and that’s about gentle persistence. Water is not hard, it’s not like rock. Water is soft, by its persistence in time it wears away mountains, it wears away rock, it will always find its way to the lowest point, the place of humility. It’s always moving, never with harshness, it can’t be harsh. It’s a gentle persistence, and I think in these times that’s what is needed, that’s why when you get to start seeing the systemic change that’s required, you need gentle persistence, not necessarily advocate violence to do these things, but by persistence and knowing who you are.” This shows how there is willingness to participate in integrating knowledge systems, but that the current system for managing natural resources should still be shifted to become more consistent with Indigenous values. Interviewee CTGT_020 spoke further on this point, “And in our Elders’ statement, it’s not just because of what we want to do, what the Elders have told us is that we who are Tagish, we who are Tlingit, have a responsibility given by Creator to us. We didn’t ask for it, Creator gave it to us, that we must watch over and work with this land. All that it’s provided for thousands of generations for the next generation to also be provided for, and that we’re going to share this land, we’re going to work with other governments in terms of how you interact with this land, but we have the responsibility to look after the land, the animals, these things. So even though western governments take on that responsibility, we as Indigenous people know that we have a responsibility that’s not ours to give away. And I think it’s constantly remembering that we have that responsibility”. This shows a responsibility both to the land and

all that it provides, but also in working with non-Indigenous people and governments to do this together in a sustainable way.

A criticism that was brought up in discussions with some of the interviewees was that the Tagish River HPA plan does not represent a holistic approach to management in relation to all the other management plans that encompass or effect the area. To this point, Interviewee CTGT_040 stated, “one of the frustrating things of this HPA which I know is of the direction of the Final Agreement to be developed but then we have the HPA and then we have the Local Area Plan and then we have the Mount Lorne Local Area Plan, it’s all these little plans, and in a traditional worldview you wouldn’t ever divide those spaces up, you need to consider the land as a whole, a piecemeal approach is not indigenous at all, and there is movement towards these regional land use plans which the government has kind of screwed up. You just need to be more holistic, it’s similar to just having a Forest Resources Management Plan, and then there’s a Caribou Management Plan, but traditionally you would never consider the forest and caribou separately. Similarly, you would never consider the salmon separately from the swans necessarily, or maybe not the salmon but the fish from the swans. So, everything in an Indigenous worldview is connected and feeds off of each other and the water and the land and all those sorts of things and the air. So, having this kind of piecemeal plans in itself move away from Indigenous processes.” Interviewee CTGT_050 also shared this critique in that the boundary of the HPA does not represent a holistic approach to management. On this point, CTGT_050 stated, “I think one of the struggles I see is that the Indigenous side of it is oriented towards a holistic approach, the Western side of it isn’t always oriented that way. And I think often we’re splitters, I mean the structure of Yukon Government is definitely more splitting...

whereas the First Nation point of view is thinking about things at a Traditional Territory scale perhaps, or beyond and how all those interactions play into the content or management directions. So, I think we still have some work to do to tease that apart, especially when the mandate of the committee is pretty explicit when you look at the boundaries of the HPA, we're always trying to reach out past the boundaries and recommend, historically HPA's haven't had much success in keeping that outside boundary information included". Interviewee CTGT_060 also brought up the frustration with boundaries and how that does not fit with Indigenous values, when it was stated, "I've said this a couple times this week but a moose walking through a forest isn't going to stop at a park boundary....So, when it comes to plans, we really need to look at the periphery of things also because there's movement, First Nations were never bound by four stakes, there was movement, so whatever is happening outside is going to affect the boundary that we're working in." Interviewee CTGT_060 went on to state, "So when it comes to co-management, thinking outside the box, you know Tagish River, Tagish River here and Local Area Plan here, their boundaries touch, they effect each other, so even co-management, like Tagish co-management, taking it as a whole, how are those two plans going to talk to each other? And how are those two plans going to manage each other?...That's where the holistic, integrated approach comes. The moose isn't going to stop on the boundary and say I'm not safe in that area or that there's no food in that area." Interviewee CTGT_070 brought up a similar point in that it is a challenge to take the holistic approach to management when there are other initiatives encompassing the same area, but that it could still be done to an extent if this is recognized. Using a holistic approach to management was also reflected in the meeting minutes, particularly in the May 29th, 2015 meeting minutes where the concern is brought up that there are

several individual planning processes that do not take a holistic stance on planning (Tagish River HPA Steering Committee, 2015, p. 3). In the June 17th, 2015 meeting minutes, the TRHSC does recognize that there are other planning processes occurring at the same time overlapping some of the issues contained within the HPA and does make the point that communication with the other committees is necessary, and that members from the TRHSC will attend meetings of other committees to share priorities (Tagish River HPA Steering Committee, 2015, p. 2). This discussion occurs over the course of other meetings frequently as well. There is also mention in the September 19th, 2017 TRHSC meeting minutes of the possibility of expanding the boundary of the HPA (Tagish River HPA Steering Committee, 2017, p. 2). It is not clear whether this has occurred or will occur.

Conclusions and Recommendations

The main question to inform this research was to what extent are Indigenous Knowledge and values included in the Tagish River Habitat Protection Area management plan and planning process? As demonstrated by the results derived from the data collected and presented above, it appears as though Indigenous Knowledge and values are included within the Tagish River HPA planning process, and will be included in the management plan, to a high degree. At the time of this research, the Tagish River HPA has not been fully completed and released as a finalized version, so it is difficult to say with certainty whether or not all the aspects of Indigenous Knowledge and values expressed by interviewees will in fact be reflected in the finalized plan, though given the structure of the steering committee being inclusive of all relevant parties, it is likely that these perceptions will be reflected. While it is likely that Indigenous Knowledge and values will be represented in the management plan, it is in the implementation of the

management actions in which will demonstrate the utility of Indigenous Knowledge and values towards effective co-management of the Tagish River HPA.

Sub-questions

To what extent do stakeholders perceive Indigenous Knowledge and values to be included in this co-management plan? As demonstrated through the reporting of results above, stakeholders perceive Indigenous Knowledge and values to be included in the Tagish River HPA management plan and planning process to a fairly high degree. While the extent to which these are included is fairly high, it was also recognized that it is difficult to perceive Indigenous Knowledge and value as being included overtly in the text of the plan, but that they are represented to a large extent in the planning process and informed each section and recommendation made in the management plan.

How are Indigenous Knowledge and values included in this co-management plan?

What aspects are included? Indigenous Knowledge and values are included in the Tagish River HPA management plan and planning process in a number of ways. As mentioned above, it is not always obvious, but Indigenous Knowledge and values are included through use of story-telling, recipes, a seasonal approach, use of the Medicine Wheel, use of ceremony, the inclusive nature of the process, encouraging education over enforcement, the consensus-based nature of the process, and the fact that the sections and recommendations are based in the values of respect, reciprocity, and relationships. From the results, these aspects of Indigenous Knowledge and values were perceived to be woven throughout the entire plan and planning process. These aspects are also all explicitly reflected in the meeting minutes of the TRHSC, as early as the April 2015 and May 2015 meetings, being the first and second meetings of the steering

committee (Tagish River HPA Steering Committee, 2015). Specific mechanisms to be able to use the Medicine Wheel and seasonal approach to frame the management plan were also used by the TRHSC during discussions on format as part of the January 12th, 2016 meeting. This structure ensures the Indigenous values of respect, reciprocity, relationships, and encouraging education over enforcement were used to frame the plan (Tagish River HPA Steering Committee, 2016, p. 2).

What are stakeholders' hopes and intentions for including Indigenous Knowledge and values in this co-management plan? The results generated by this question represent subjective opinions of stakeholders, though generally it was found that the hopes and intentions for including Indigenous Knowledge and values in the Tagish River HPA plan were and are to ensure an inclusive process so that all stakeholders are represented within the plan, to ensure that all stakeholders affected by the plan would have their views incorporated, and to utilize Indigenous Knowledge and values as the framework for the plan and planning process.

Are stakeholders satisfied with the extent to which Indigenous Knowledge and values are included in this co-management plans? Why or why not? In general, the majority of interviewees demonstrated a level of satisfaction with the extent to which Indigenous Knowledge and values are represented within the Tagish River HPA management plan, though each interviewee had issues or suggestions with certain parts. While the majority of interviewees were satisfied to a certain extent, issues regarding the implementation of the plan by governments, the nature of the co-management system in the Yukon, as well as the boundaries of the HPA itself were issues affecting the satisfaction level of interviewees. This question can therefore not be addressed by a simple yes or no.

Recommendations

Based on the findings discussed above, the following recommendations are presented to ensure the adequate representation of Indigenous knowledge and values in co-management planning and implementation.

1. Western and Indigenous thinkers as members of a co-management committee should examine the meanings and values behind seemingly simple terms to ensure that it is understood what is being portrayed in a management regime or plan, rather than making assumptions rooted within the English language. One example of this practice is to be found in the TRHSC meeting minutes, where a discussion is held on the different meanings of the term “recreation” to different TRHSC members as well as different users of the Tagish area (Tagish River HPA Steering Committee, 2015, p. 3).
2. Co-management committees should attempt to utilize Indigenous language not only in the physical plans themselves, but also as part of their proceedings and meetings as a committee, as it can bridge the gap of different understandings of the same terms and break down the assumptions that those understandings are the same. This was something that was done as part of the Tagish River HPA planning process at the first meeting of the steering committee, which is reflected in the April 27th, 2015 meeting minutes. It was also reflected in TRHSC meeting minutes for August 11th, 2016, where the committee heard presentations and held discussions regarding place-names and meanings of words in Tagish and Tlingit to inform the planning process (Tagish River HPA Steering Committee, 2016, p. 1).
3. Members sitting on co-management boards should begin conversation by discussing both their technical understandings of the difficulty of integrating the knowledge systems, as well as openly

discussing their political views on this integration. This can help break down the assumptions that each knowledge holder has of the other and really begin the discussions rooted in those key difficulties. This can act as a relationship-building tool, which is a point that the majority of interviewees made. Specifically, on this point, Interviewee CTGT_040 stated, “relationship-building, so be prepared for meetings where not a lot of things happen or come out of it, it could just be sharing of stories, who you are and what your experiences are, and what your expectations are. Getting all of those kinds of things out, having those conversations, allowing for those relationships to be developed will actually lead to successful co-management where you’re actually working together, because if each group is going in with different agendas and different perspectives then there’s no ability to come together and your co-management is never going to work because you’re not even speaking the same language.” Interviewee CTGT_050 had a slightly different perspective on this, where it was noted that the relationship-building portion is very important to the process, but that it should be conducted before the process begins to ensure commitments. In either case, there is great importance put on relationship-building.

4. Mutually define terms that are typical in the management discourse being discussed as part of the co-management regime. Nadasdy (2003) notes that these terms can be laden with assumptions and lead to disagreements and perceptions of bad faith through the process if they are not mutually understood by the representatives of each knowledge system. These terms can include subsistence, traditional use, and conservation, to name a few. Mutually defining these terms early in the process can alleviate the assumptions laden within these terms for a better understanding of what everyone believes them to mean. Interviewee CTGT_040 brought up that concern in the above section, where it was detailed how the concepts behind conservation are

inherently different between Indigenous people and Western scientists, in that Indigenous people tend to conserve habitat and areas so that the resources in which they depend on can continue to be used, where generally the Western understanding of conservation is outright protection.

Another example of this that was brought up by Interviewee CTGT_040 was that of the concept of management. Interviewee CTGT_040 stated, “I hate that word management in the first place because it’s inherently colonial with the idea of control, and that’s not an Indigenous perspective, it’s never about control, it’s about respect and treating things appropriately and properly so that we can live together.” In this context, the concept of management in the Western scientific framework appears to be more about controlling natural resources, where in the Indigenous context it is more about controlling human relationships to natural resources.

5. Members of a co-management committee should review other co-management regimes as part of preliminary stages: both those that were successful, and particularly importantly, those that were unsuccessful. This can assist with creating a regime more conducive to success, as the positives and negatives of other regimes will be examined. Interviewee CTGT_070 brought up this point, in that there has been interest from the TRHSC in looking at other co-management plans. This is also reflected in the July 2nd, 2015 meeting minutes, where the TRHSC reviewed other examples of planning processes within the Yukon (Tagish River HPA Steering Committee, 2015, p. 5)

6. All the people who are working on a management plan should get out into the bush and the areas in which are being managed to get first-hand experience leading to primary knowledge about the area. To truly experience the learning by doing concept of getting familiar with an area in the bush, the places should be visited each season, and continually over time. Nadasdy (2003)

presents an example given to him through his work with Kluane First Nation, in that he was told that you can never really learn anything about the skills for being in the bush through books or in a classroom setting, but that it must be experienced firsthand (p. 111) In regards to the Tagish River HPA, this can be demonstrated by the meeting minutes generally, in that all meetings are held in Tagish, that the steering committee members attempt to use the area, that meetings are sometimes held on the land in the area, that as part of introductions people say their connection to the Tagish area. It is also demonstrated through the meeting minutes where the steering committee has set up boat trips along the Tagish River to be able to physically monitor and observe the land (Tagish River HPA Steering Committee, 2015, p. 4).

7. Develop joint legislation through co-management committees that holds governments accountable to working together on an even playing field. This can mitigate the concern that management actions will not be addressed in the implementation of the plan because there is no government policy or legislation forcing this. Specifically, to this point, Interviewee CTGT_010 stated, "I would also say that HPA planning process should also incorporate some more detailed commitments, whether it be beefing up policies for each government to abide by." Interviewee CTGT_10 also stated, "the departments work in silos, so each division of each branch may interpret a plan completely differently and then what that generates is a lot of confusion in trying to ensure compliance in a plan that is also very much seen as a guiding document for a government to proceed, Yukon Government is not required to take that plan and establish new regulations as we know they're very reluctant to open the regulations." Interviewee CTGT_020 also expressed the need for this when it was stated, "So what we're trying to do is incorporate this idea of joint legislation, whereas we've already stabilized Western governments, so for us to

start defining what our Aboriginal rights and exercise of Aboriginal rights mean. We have to develop legislation or laws that begin to start saying this is how we exercise these rights on the Tagish River....So, when you start saying we need to develop those legislative processes, we begin to stabilize each other and as governments we're working together, and not with the intent to undermine, but the intent of how do we stabilize, how do we work together? So joint legislation, this type of thing, could be a move to stabilizing that relationship and really lead towards better co-management." The concept of joint legislation came up as part of the August 8th, 2018 TRHSC meeting, where the possibility of forming an inter-governmental working group to discuss joint legislation potential was discussed (Tagish River HPA Steering Committee, 2017, p. 3).

8. Shift the current co-management regimes to be more conducive to shared-decision making through co-governance structures. This would involve shifting the structure of recommending a plan to a state government for their ultimate approval to one that includes decision-making abilities of all parties. A co-governance structure, where decision-making processes are shared, can inform better co-management of natural resources. Interviewee CTGT_020 expressed this point multiple times. Interviewee CTGT_020 stated, "So if you're true about this co-governance, co-management, and I would push it to co-governance as opposed to co-management. Co-management is a step, but I think co-governance tends to solidify....What we're finding is as we look at self-government...the co-management decision-making, but...often times management by Western governments is focused on commercialism of the resources, protection, all those things, which I'm not criticizing, their approach to it, where we start looking at a different kind

of approach, inherently there's a different approach, and so co-governance will stabilize, then we start getting into true co-management.”

9. Co-management committees that have conservation mandates that do inherently fit with Indigenous values of conservation can form best practices for integrating Indigenous Knowledge and values that can then eventually be translated into plans that do not have conservation focuses (i.e. resource extraction management plans), where the integration is not as easy to do presently. Interviewee CTGT_040 expressed this point when it was stated, “It (Indigenous Knowledge) doesn't mesh as well when you start looking at resource extraction and where money starts to drive things, it's harder for that translation, for those groups to come together because that dollar tends to drive things a little more strongly and there your values are different essentially, your values aren't about conserving and protecting and having things into the future, your values turn to a more market economy. So, in those types...those challenges for actual traditional and Indigenous Knowledge being incorporated into management, they start to get further and further away. I think for a Habitat Protection Area, for conservation areas...there's opportunity, and hopefully then the more that they happen can start being our platforms and our tools and best practices for moving forward in co-management. In those other realms where it's scary for especially those people who are at risk of losing money out of it, but if we can start developing best practices at this level it can get us somewhere really great in the future.” Interviewee CTGT_070 expressed the point multiple times that the hope is that the Tagish River HPA plan can be used a good example to other plans, but also that Indigenous Knowledge can be used in any type of plan. Interviewee CTGT_070 stated, “But I think it still comes down to worldview, I think you can still base a plan on Indigenous Knowledge or use it a lot more

respectfully....obviously Carcross/Tagish is doing it, it can be done, there's the Indigenous land use plan, there are plans that could do a better job around it.”

10. Co-management committees should continue to meet and discuss the management goals and actions and implementation of these after the plan is finalized. This will help to ensure that all issues are being addressed through their original intent in why they were included in the management plan, as well as providing an adaptive mechanism if other issues arise after the finalization of a plan. This was brought out of the discussion with Interviewee CTGT_010, where it was mentioned, “I think the steering committee would benefit from...meet(ing) quarterly to provide activity updates, wildlife monitoring updates, updates from the First Nation rep says to what activities might occur in those areas by the members, and I think ensuring that there is that trust”. The TRHSC discussed a similar mitigation to the concern of ineffective implementation as part of the February 18th, 2016 meeting, in that there would be interim reviews of the management plan at two to three-year intervals for the purpose of being able to efficiently adapt management actions (Tagish River HPA Steering Committee, 2016, p. 3). Another mitigative measure discussed by the TRHSC at the July 11th, 2017 meeting was to create an implementation plan specific to the management goals to keep each party aware and accountable to the actions in which they are responsible for (Tagish River HPA Steering Committee, 2017, p. 2). Further to these points, the TRHSC discussed the possibility of creating an implementation committee to ensure the management actions were being appropriately addressed, and that an annual check of the proceedings should also take place, possibly in the form of a yearly ceremony with the community to identify what has been completed and what

priorities are outstanding at the October 31st, 2017 meeting (Tagish River HPA Steering Committee, 2017, p. 2).

11. Co-management committees should write management plans in an adaptive or flexible way, in that the plan the committee finalizes should not be treated as final and unchanging, there should be room to continue working on the management goals and actions in order to accommodate change. This was brought up by several interviewees. Interviewee CTGT_010 stated, “there’s a recognition that Indigenous Knowledge is not just simply reflective of the history of the area and then a snapshot in time I mean current use information collected that inform, that is built into Indigenous Knowledge is always evolving, so there needs to be a recognition that when the management plan is being implemented, that Indigenous Knowledge is continuing to grow in that area whether it’s representative of continued use of the area, or subsisting, or collecting medicines, or harvesting, there needs to be that recognition.”

Interviewee CTGT_050 also expressed this point when it was suggested that review periods be built into the plan after completion, as well as being cognizant of the fact that the plan should be written in a manner that it is able to respond to change. The TRHSC also recognized the necessity of having the management plan be flexible to incorporate change through the many discussions held regarding the changing environment (Tagish River HPA Steering Committee, 2016, p. 2).

12. Co-management plans should be inclusive of a diverse range of people representing each organization, making sure to include the unique perspectives of knowledge holders, such as Elders and women (or matriarchs). This was a recommendation brought up by Interviewee CTGT_030. This was a point also supported by Interviewee CTGT_040 where it was stated,

“involve Elders as much as possible so even if they aren’t necessarily the representatives on the table, encouraging Elder representation at every meeting, and giving them the authority to tell you when you’re doing it wrong. Which is the other thing, because often we include Elders as a sidebar, come in and say a prayer and then just sit in the corner. Bring them in but let them know they have the authority to say no, that’s not right, or no, why are you doing it that way, because they are the holders of the knowledge, so I would definitely say include Elders as much as possible.” This demonstrates the significant utility in involving Elders, but that they must not be present just for symbolic purposes. While it is recognized multiple times throughout the TRHSC meeting minutes that Elders must be involved, and there are efforts made to do this such as Elders lunches and presentations to the C/TFN Elders Council, the comments from interviewees demonstrate that there could always be more done to ensure involvement of Elders. Interviewee CTGT_020 also emphasized the use of matriarchs. Interviewee CTGT_020 stated, “Traditionally it’s our matriarchs that ground most of this data. So, we’re beginning to explore, and we need to talk to the matriarchs, because as they are on the land, it may not be them hunting or trapping or whatnot, but it’s about their clan, their family unit influence around this matriarch value to interact with the land. So...this matriarch in this Traditional Territory is the one you really need to talk to in terms of giving comfort and whatnot” The unique perspectives of women in decision-making is something that Staples and Natcher also argue needs to be better represented in co-management (2015).

13. Co-management committees should use Indigenous Knowledge and values as the foundation of forming the guiding principles, vision, and other preliminary documents that shape the planning process, so that the knowledge and values are used in every facet of a plan, not just kept

separate in its own section. On this point, Interviewee CTGT_040 stated, “Let’s acknowledge that (Indigenous Knowledge and values) and use that as the foundation for our guiding principles in a plan particularly and establishing a vision and all of those things that go into a Western framework of what a plan is, those components need to be there for political and legal reasons, but how can we use Indigenous Knowledge and law as the foundations for those parts? Then just use the scientific stuff to support it.” The TRHSC meeting minutes from the onset of meetings demonstrate how the process was grounded in Indigenous Knowledge and values through the guiding principles to using a Medicine Wheel and seasonal approach to confronting issues (Tagish River HPA Steering Committee, 2015).

14. Co-management committees should not include a separate section that attempts to be representative of Indigenous Knowledge and values, but rather should ensure that Indigenous Knowledge and values are incorporated throughout every aspect of a plan and planning process. Interviewee CTGT_040 brought up this point when it was stated, “where I think a lot of plans go wrong is that they have each section written out and then have a heading that says traditional knowledge, and then they stick in a little blurb and might have a quote from an Elder and then move onto the next one, rather than having it incorporated wholesomely and fulsomely throughout the project.”

15. Co-management committees should develop a set of mutually agreed upon guiding principles early in the process that lay out processes to resolve disputes that are based in core Indigenous values. To this point, Interviewee CTGT_050 stated, “Some of the work we did early on like terms of references stuff that we ended up calling guiding principles, I found that to be pretty valuable and three years later something we can point back to and remember we talked about this

and this is how we agreed to proceed, whether it's inclusivity, consensus-based, how you solve those problems or disagreements, all those types of components that can derail a discussion are really important to have upfront, to get agreement." This shows how the Indigenous values of inclusivity and consensus were woven into guiding principles. This is also demonstrated through the early TRHSC meeting minutes where guiding principles were based in the values of respect, inclusivity, and consensus (Tagish River HPA Steering Committee, 2015).

16. Co-management committees should attempt to implement a series of pre-completion checks with each respective organization's leadership to gauge the acceptability of certain proposed management actions to see if they will be likely to be approved. To this point, Interviewee CTGT_050 stated, "One other thing that we just finished doing is taking a subset of our recommendations and passing them through the agencies as kind of a temperature check, and so it's almost like a pre-approval...it's more these are the discussions we're having and this is where we're going with this, if this is problematic for you now, we should bring this up now and find a different path. If it's not problematic, then great we can proceed. So instead of at the final draft plan where you've worked a bunch, you can take some excerpts out and say how is this going to work for you and can you live with this?" This concept is also demonstrated through the TRHSC meeting minutes, particularly from the August 12th, 2015 meeting, where letters were drafted to the different parties' leadership to inform them of the goals, intent, and approach of the TRHSC (Tagish River HPA Steering Committee, 2015, p. 5). This was further demonstrated by the TRHSC through the February 2nd, 2018 meeting minutes where a briefing document was sent out to each of the respective planning parties to seek an approval-in-principle on a list of the

management recommendations the TRHSC had already decided on (Tagish River HPA Steering Committee, 2018, p. 1).

17. Co-management committees should conduct a review of all other management plans, legislations, regulations, and other influencing aspects that encompass the area which is being managed. This will assist a committee in taking a holistic approach to co-management, which in itself is an Indigenous value. The points raised above by Interviewees CTGT_040, CTGT_050, CTGT_060, and CTGT_070 support not taking a piecemeal approach to management, but to holistically consider all other influencing factors that may occur outside the boundary of the area which is being managed. There was also recognition of this reflected in the June 17th, 2015 meeting minutes where the TRHSC requested a review of all applicable legislation for the area (Tagish River HPA Steering Committee, 2015, p. 2).

As can be seen in the discussion of the results from the interviews and analysis of the TRHSC documents, all participants perceived that the plan will include various aspects of Indigenous Knowledge and values, particularly more so than do other existing HPA plans within the Yukon. There are many hopeful feelings that this HPA will represent a good example moving forward for appropriate co-management regimes in the future. While this can all be seen through the perspectives and attitudes of participants in the research, several did still suggest improvements to the process to more effectively include Indigenous Knowledge and values in aspects of decision-making, leading to more sustainable management of the Tagish area. Most participants were also hesitant to make definitive determinations on their level of satisfaction regarding the inclusion of Indigenous Knowledge and values, as the practical application of this knowledge and these values will be dependent upon the implementation of the management

actions. At the point of conclusion of this research, it still remains to be seen how Indigenous Knowledge and values will be implemented. Kahane (2010) that not every detail a planning committee makes necessarily has to be planned and mapped out perfectly, but that there needs to be a sense of urgency in moving forward and figuring out those steps and pieces together along the way (p. 121). From speaking to stakeholders and analyzing the TRHSC documents, it appears as though the Tagish River HPA process is a good representation of this balance.

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Appendices

Appendix A – Schedule C – Carcross/Tagish First Nation Final Agreement – Tagish River

SCHEDULE C

TAGISH RIVER HABITAT PROTECTION AREA

1.0 Definitions

1.1 In this schedule, the following definitions shall apply. "Approved Management Plan" means the management plan in respect of which a consensus has been reached under 6.2 or decided by the Minister under 6.3 of this schedule.

"Area" means the area shown as Tagish River Habitat Protection Area on Map Sheet Tagish River Habitat Protection Area in Appendix B - Maps, which forms a separate volume to this Agreement.

"Board" means the Water Board established for the Yukon pursuant to Laws of General Application.

"Forest Resources" has the same meaning as in Chapter 17 - Forest Resources.

"Habitat Protection Area" means the Tagish River Habitat Protection Area established by the Yukon pursuant to the Wildlife Act, R.S.Y. 2002, c. 229, in respect of a portion of the Area, in accordance with this schedule.

"YEC" means the Yukon Energy Corporation and its successors and assigns.

1.2 In this schedule, "mines and minerals" and the "right to work" the mines and minerals shall have their meanings according to Laws of General Application and not as defined in Chapter 1 - Definitions.

2.0 Objectives

2.1 The objectives of this schedule are as follows:

2.1.1 to establish a habitat protection area in the Tagish River area;

2.1.2 to conserve nationally and locally important Fish and Wildlife and Fish and Wildlife habitat in the Habitat Protection Area for the benefit of all people;

2.1.3 to recognize the traditional use of the Area by the Carcross/Tagish First Nation;

2.1.4 to recognize the current use of the Area by the Carcross/Tagish First Nation, Carcross/Tagish People and other Yukon residents;

2.1.5 to conserve the full diversity of Fish and Wildlife populations and their habitats from activities that could reduce the capability of the Area to support Fish and Wildlife;

2.1.6 to recognize and honour the history, heritage and culture of the Carcross/Tagish First Nation in the Area through the establishment and operation of the Habitat Protection Area;

2.1.7 to encourage public awareness, appreciation and enjoyment for the natural resources of the Habitat Protection Area;

2.1.8 to recognise the Habitat Protection Area as a multi-use area including uses for recreation and for the storage, use and management of water for hydro electric production for the benefit of all Yukon people;

2.1.9 to provide a process to develop a management plan for the Habitat Protection Area;

2.1.10 to provide economic opportunities to the Carcross/Tagish First Nation and People to participate in the development, operation and management of the Habitat Protection Area in the manner set out in this schedule.

3.0 Establishment

3.1 As soon as practicable after the Effective Date, if Canada has not already done so, Canada shall transfer to the Commissioner of the Yukon the administration and control of the Crown Land within the Area, excluding the mines and minerals and the right to work the mines and minerals, in, on or under the Crown Land.

3.2 Except as provided in 3.3, as soon as practicable after the Effective Date and following the transfer referred to in 3.1, the Yukon shall designate the Area as a habitat protection area pursuant to the Wildlife Act, R.S.Y. 2002, c. 229, to be known as the Tagish River Habitat Protection Area.

3.3 The Habitat Protection Area shall not include:

3.3.1 the mines and minerals, in, on or under the Area and the right to work the mines and minerals;

3.3.2 any land which is Settlement Land as of the Effective Date of this Agreement;

3.3.3 any land in respect of which a title is registered in the Land Titles Office as of the Effective Date of this Agreement to a Person who is not a party to this Agreement;

3.3.4 any Crown Land that is subject to an agreement for sale or a lease containing an option to purchase, issued by Government on or before the Effective Date of this Agreement;

3.3.5 the unnamed island in Tagish River as shown on Map Sheet Tagish River Habitat Protection Area in Appendix B - Maps, which forms a separate volume to this Agreement.

3.4 The designation as a habitat protection area shall not be removed from any part of the Habitat Protection Area without the agreement of the Yukon, the Carcross/Tagish First Nation and Canada.

3.5 Subject to 3.8 and 3.9, Government shall, no later than the Effective Date:

3.5.1 prohibit entry on the Area for the purpose of locating, prospecting or mining under the Quartz Mining Act, S.Y. 2003, c. 14, and the Placer Mining Act, S.Y. 2003, c. 13; and

3.5.2 withdraw the mines and minerals, in, on or under the Area from disposal under the Territorial Lands (Yukon) Act, S.Y. 2003, c. 17.

3.6 Subject to 3.8 and 3.9, the Yukon shall, no later than the Effective Date, withdraw the Area from disposition under the Oil and Gas Act, R.S.Y. 2002, c. 162.

3.7 Subject to 3.8 and 3.9, no one may explore for coal in, on or under the Area.

3.8 For greater certainty, the provisions of 3.5, 3.6 and 3.7 shall not apply in respect of:

3.8.1 mineral claims and leases recorded or continued under the Quartz Mining Act, S.Y. 2003, c. 14 and placer mining claims and leases to prospect recorded or continued under the Placer Mining Act, S.Y. 2003, c. 13, existing on the Effective Date;

3.8.2 oil and gas dispositions under the Oil and Gas Act, R.S.Y. 2002, c. 162 existing on the Effective Date, which for greater certainty, includes federal dispositions;

3.8.3 rights granted or continued under section 6 of the Territorial Lands (Yukon) Act, S.Y. 2003, c. 17, existing on the Effective Date; and

3.8.4 any successor or replacement rights and any new leases, licenses, permits or other rights which may be granted in respect of an interest described in 3.8.1, 3.8.2 or 3.8.3.

3.9 The provisions of 3.5, 3.6 and 3.7 shall not prohibit the granting of rights to mines and minerals underlying the Area which may be accessed directionally from a location outside the Area, and the right to work such mines and minerals, provided that the granting of such rights

and the working of those rights do not require access to the surface of the Area or would result in a reasonable likelihood of disturbing the surface of the Area.

4.0 Steering Committee

4.1 A steering committee (the "Steering Committee") shall be established as soon as practicable after the Effective Date to prepare and recommend a management plan for the Habitat Protection Area.

4.2 The Steering Committee shall be comprised of six members, of whom three shall be designated by the Carcross/Tagish First Nation, two shall be designated by the Yukon and one shall be designated by Canada.

4.3 Members of the Steering Committee shall have knowledge and expertise with respect to management of habitat protection areas and shall be delegates of the parties who designated them.

4.4 The Steering Committee may make its own operating procedures and shall, to the greatest extent possible, work on a consensus basis.

5.0 Management Plan

5.1 The Steering Committee shall endeavour to recommend a management plan to the Yukon, the Carcross/Tagish First Nation and Canada within 24 months of the establishment of the Steering Committee.

5.2 The management plan shall be consistent with the objectives set out in 2.1.2 to 2.1.10 of this schedule and with the Wildlife Act, R.S.Y. 2002, c. 229.

5.3 The Steering Committee shall consider and the management plan may address all matters pertaining to the management of the Habitat Protection Area including:

- 5.3.1 Fish and Wildlife management and protection;
 - 5.3.2 habitat management and protection;
 - 5.3.3 land use;
 - 5.3.4 recreational use;
 - 5.3.5 access to and use of the Habitat Protection Area for commercial purposes;
 - 5.3.6 scientific research;
 - 5.3.7 traditional knowledge, customs and cultures of Carcross/Tagish People in connection with the Area;
 - 5.3.8 the role and views of Carcross/Tagish First Nation elders in the development of the management plan;
 - 5.3.9 the traditional use of the Area by the Carcross/Tagish First Nation and Carcross/Tagish People;
 - 5.3.10 the past and current use of the Area by the Carcross/Tagish First Nation, Carcross/Tagish People and other Yukon residents;
 - 5.3.11 measures to enhance public awareness and appreciation of the Habitat Protection Area; and
 - 5.3.12 such other matters as Government and the Carcross/Tagish First Nation may jointly request the Steering Committee to consider.
- 5.4 The preparation of the management plan shall include a process for public consultation.
- 5.5 Prior to approval of the management plan, the Steering Committee may refer the management plan to the Carcross/Tagish Renewable Resources Council for their review and recommendations.

5.6 In preparing a management plan to recommend pursuant to 5.1, if the members of the Steering Committee are unable to reach a consensus as to the matters to be included in a management plan, any member of the Steering Committee may, upon direction from the body that designated them, refer the matter to dispute resolution under 26.4.0.

5.7 The Steering Committee shall forward a proposed management plan to the Yukon, the Carcross/Tagish First Nation and Canada indicating what matters, if any, remain outstanding.

6.0 Review and Approval of the Management Plan

6.1 Within 90 days of receipt of the management plan from the Steering Committee, the Yukon, the Carcross/Tagish First Nation and Canada shall jointly review the provisions therein and any outstanding matters.

6.2 The Yukon, the Carcross/Tagish First Nation and Canada shall make reasonable efforts to reach a consensus as to the provisions to be included in the management plan.

6.3 If the Yukon, the Carcross/Tagish First Nation and Canada fail to reach a consensus under 6.2, within 180 days of receipt of the management plan from the Steering Committee, the Minister may accept, vary or set aside the provisions set out in the management plan from the Steering Committee.

6.4 The decision of the Minister under 6.3 as to the provisions to be included in the Approved Management Plan shall be forwarded to the Carcross/Tagish First Nation and Canada in writing.

7.0 Implementation of the Approved Management Plan

7.1 The Yukon shall manage the Habitat Protection Area in accordance with the Approved Management Plan and the Wildlife Act, R.S.Y. 2002, c. 229.

7.2 Prior to the implementation of the Approved Management Plan, the Yukon shall manage the Habitat Protection Area in accordance with the Wildlife Act, R.S.Y. 2002, c. 229 and to the extent practicable, in a manner consistent with the objectives set out at 2.1.2 to 2.1.10 inclusive of this schedule.

7.3 Government, the Fish and Wildlife Management Board and the Carcross/Tagish Renewable Resources Council shall make best efforts to coordinate the management of Fish and Wildlife populations which cross the boundary of the Habitat Protection Area.

7.4 Government shall manage the mines and minerals in, on or under the Area and the right to work the mines and minerals in accordance with Laws of General Application.

7.5 In managing the mines and minerals in, on or under the Area and the right to work the mines and minerals in accordance with Laws of General Application, Government shall, to the extent practicable, take into account the objectives set out in 2.1.2 to 2.1.10 inclusive of this schedule.

8.0 Review and Amendment of the Approved Management Plan

8.1 Unless they otherwise agree, the Yukon, the Carcross/Tagish First Nation and Canada shall review the Approved Management Plan no later than five years after its initial approval and at least every 10 years after the first review.

8.2 Review of the Approved Management Plan under 8.1 shall include a process for public consultation.

8.3 Recommendations for any proposed amendments arising from the reviews under 8.1 shall be forwarded to the Minister as soon as practicable following each review.

8.4 The Yukon, the Carcross/Tagish First Nation and Canada shall make reasonable efforts in the review under 8.1 to reach consensus as to any action to be taken as a result of the review of the Approved Management Plan.

8.5 The Minister shall determine what action, if any, shall result from the review of the Approved Management Plan and shall advise the Carcross/Tagish First Nation and Canada of any decision in writing.

8.6 Government and the Carcross/Tagish First Nation shall consider and may develop mechanisms or enter into agreements to facilitate co-operative implementation and monitoring of the Approved Management Plan.

9.0 Fish and Wildlife

9.1 For greater certainty, Carcross/Tagish People have the right to harvest Fish and Wildlife within their Traditional Territory within the Habitat Protection Area in accordance with Chapter 16 - Fish and Wildlife.

10.0 Forest Resources

10.1 The right of Carcross/Tagish People to harvest Forest Resources within their Traditional Territory within the Habitat Protection Area shall be pursuant to Chapter 17 - Forest Resources, but the rights pursuant to 17.3.1.2 shall be subject to the provisions of the Approved Management Plan.

11.0 Heritage

11.1 Tagish and Tlingit shall be included, where practicable, in any interpretive displays and signs regarding the history and culture of Carcross/Tagish People that may be erected in, or related to, the Habitat Protection Area.

11.2 When considering the naming or renaming of places or features in the Habitat Protection Area, the responsible agency shall Consult with the Carcross/Tagish First Nation.

11.3 Nothing in this schedule or the Approved Management Plan shall affect the ownership of Heritage Resources as provided in 13.3.0 of this Agreement.

12.0 Economic Opportunities

12.1 Government shall provide written notice to the Carcross/Tagish First Nation of any public tender for contracts associated with establishment of the Habitat Protection Area, construction of the Habitat Protection Area facilities or operation and maintenance of the Habitat Protection Area.

12.2 Government shall include the Carcross/Tagish First Nation in any invitational tender for contracts associated with establishment of the Habitat Protection Area, construction of the Habitat Protection Area facilities or operation and maintenance of the Habitat Protection Area.

12.3 The Carcross/Tagish First Nation shall have the first opportunity to accept any contract offered by Government, other than by public or invitational tender, associated with establishment of the Habitat Protection Area, construction of the Habitat Protection Area facilities or operation and maintenance of the Habitat Protection Area upon the same terms and conditions as would be offered to others. A first opportunity shall be offered in the following manner:

12.3.1 Government shall give notice in writing to the Carcross/Tagish First Nation specifying the terms and conditions of any such contract;

12.3.2 the Carcross/Tagish First Nation may exercise the first opportunity referred to in 12.3 by advising Government in writing, within 45 days of receipt of the notice referred to in 12.3.1, that it will be accepting such contract; and

12.3.3 if the Carcross/Tagish First Nation fails to advise Government within the time and in the manner specified in 12.3.2, it shall be deemed to have given notice that it will not be exercising the opportunity set out in 12.3.

12.4 Any failure to provide written notice pursuant to 12.1 shall not affect the public tender process or the contract awards resulting therefrom.

12.5 Any failure to include the Carcross/Tagish First Nation in any invitational tender for contracts pursuant to 12.2 shall not affect the invitational tender process or the contract awards resulting therefrom.

12.6 Any failure to provide a first opportunity pursuant to 12.3 shall not affect any contract entered into associated with establishment of the Habitat Protection Area, construction of the Habitat Protection Area facilities or operation and maintenance of the Habitat Protection Area.

12.7 Government shall include a criterion for employment of Carcross/Tagish People or engagement of Carcross/Tagish Firms in any contract opportunities associated with establishment of the Habitat Protection Area, construction of the Habitat Protection Area facilities or operation and maintenance of the Habitat Protection Area.

12.8 Nothing in 12.7 shall be construed to mean that a criterion for employment of Carcross/Tagish People or engagement of Carcross/Tagish Firms shall be the determining criterion in awarding any contract.

12.9 A failure to include a criterion for employment of Carcross/Tagish People or engagement of Carcross/Tagish Firms pursuant to 12.7 shall not affect any contract entered into associated with establishment of the Habitat Protection Area, construction of the Habitat Protection Area facilities or operation and maintenance of the Habitat Protection Area.

13.0 Development Assessment and Land Use Planning

13.1 In carrying out their functions under Chapter 12 - Development Assessment, the Yukon Development Assessment Board and a Designated Office shall consider the Approved Management Plan.

13.2 In developing a land use plan which includes all or part of the Habitat Protection Area, a Regional Land Use Planning Commission shall consider the Approved Management Plan.

14.0 Hydro-Electric Production

14.1 The establishment of the Habitat Protection Area is not intended to create a priority among the interests or uses referenced in the objectives set out in 2.0.

14.2 The establishment of the Habitat Protection Area and the development of an Approved Management Plan, and any amendment thereto, shall not affect the jurisdiction of the Board.

14.3 Notwithstanding this schedule, management of the Habitat Protection Area shall not affect the rights, privileges and obligations of YEC with respect to the storage, use and management of the water in the Area for hydro-electric production pursuant to;

14.3.1 Water License HY99-010;

14.3.2 the Northern Canada Power Commission Yukon Assets Disposal Authorization Act, S.C. 1987, c. 9 and agreement related thereto; and

14.3.3 any future licenses and authorizations issued to YEC in relation to waters in the Area, including a right to flood to the extent necessary and authorized by the Board.

Appendix B – Carcross/Tagish First Nation Elders Statement

“We who are Tagish and we who are Tlingit, our heritage has grown roots into the earth since the olden times. Therefore we are part of the earth and the water.

We know our Creator entrusted us with the responsibility of looking after the land into perpetuity, and the water, and whatever is on our land, and what is beneath our land. So those coming after us, we will give them that responsibility into perpetuity. Our elders have assigned us the task of showing respect to things. Therefore, we will look after our land as they have told us to do, as did our elders, because we were the first to come to this land that is now called Canada.

We will be the bosses of our land. We will watch over our land as we have agreed upon, and as we ourselves manage things according to our traditions. We will bequeath it to those coming after us into perpetuity. We will work with people to strengthen our heritage, to give a firm foundation to our peoples lives, and to manage our land well. We will work with all peoples to take good care of our land, and all the resources of this land, as we have agreed on. We will be our own masters. We who are the Tagish, and we who are the Tlingit, will protect our land, so that the things will be according to what has been agreed on, so that they will live by it.

According to what we have agreed on, we will reform the way we work with the government. We will work together with mutual respect, and act truthfully [toward each other]. We will all work together, those who own the land, and those who use the land. We will manage together, the land and the water and what is on the land. Then everything will be prepared for those coming after us.

As we have agreed on, so we will act. We will work as our elders instruct us, and improve the lot

of those coming after us. We will use our land with other nations. Moreover, we will look after our land well, so that our descendants can see how good it is, and in this way too, we will respect our land from which we were born."

Appendix C – Interview Questions**Indigenous Knowledge in Environmental Co-management in Yukon – Draft Interview Questions**

A list of interview questions is as follows:

1. What is your involvement in/knowledge of the Tagish River Habitat Protection Area planning process?
2. How do you describe Indigenous Knowledge?
3. To what extent do you think Indigenous Knowledge and values are included in this co-management plan? (If respondent is not familiar with the content of the management plan, the question will be oriented towards co-management plans in the Yukon in general) (prompt – not at all, they are but not adequately, they are adequately represented, etc.).
4. How do you think Indigenous Knowledge and values are included in this co-management plan? What aspects of Indigenous Knowledge do you believe are included? What aspects do you think are not included? (prompt – i.e., through the text of the plan, pictures, Indigenous language used, etc.). (If respondent is not familiar with the content of the management plan, the question will be oriented towards co-management plans in the Yukon in general).
5. What were or are your hopes and intentions for including Indigenous Knowledge and values in this plan? In co-management plans in general? (If respondent is not familiar with the content of the management plan, the question will be oriented towards co-management plans in the Yukon in general).

6. Are you satisfied with the extent to which Indigenous Knowledge and values are included in this co-management plan? Why or why not? (If respondent is not familiar with the content of the management plan, the question will be oriented towards co-management plans in the Yukon in general).

7. What do you consider to be the role of Indigenous Knowledge and values in this co-management plan? In co-management plans in general?

Appendix D – Informed Consent Form**Indigenous Knowledge in Environmental Co-Management Plans in Yukon**

Neil McGrath

MA Candidate

Royal Roads University

School of Environment and Sustainability

(email removed)

(phone number removed)

Hello,

My name is Neil McGrath, and I am conducting research on Indigenous Knowledge in Co-management for protected areas in the Yukon. This research is being conducted as a part of my requirement to fulfill my degree with Royal Roads University. I am extending this invitation to you to participate in an interview conducted by me to discuss your views about the inclusion of Indigenous Knowledge in a Co-management plan.

These interviews involve gathering the opinions of stakeholders who were involved and/or are affected by the Tagish River Habitat Protection Area about the inclusion of Indigenous Knowledge within this planning process. The purpose of this research is to investigate this management plan to determine if and how Indigenous Knowledge is represented, as well as how stakeholders perceive and would like to see Indigenous Knowledge represented. While questions are based on the use of Indigenous Knowledge, no information regarding the specifics of that

knowledge will be sought, as that is very sensitive and important information. This research will result in recommendations that will better inform the planning committees of future co-management plans in including Indigenous Knowledge as they are mandated to.

Your involvement in this research would be to participate in an interview carried out by me, which will likely consist of no more than 10 questions and take up to 1 hour. The information you choose to disclose from this interview will be used for the purpose of determining stakeholder perspectives and views of this co-management plan. Your identity will be kept confidential throughout the research process as you will be assigned a code for the duration. All responses will be kept safe on an in-house storage device, and will not be associated with individual interviewees. Responses will be recorded using a personal recording device, as well as follow-up notes made by me, which will be kept in a locked cabinet. If you are not comfortable with this recording method, alternate methods will be used. Once the research is conducted and completed, all responses will be destroyed. You will be free to withdraw participation and responses from this research at any point before or during an interview should you wish. Once your responses are included in the anonymous dataset, it will not be possible to remove them. This research will be published as a Masters thesis. Your name will not be used in any publications. Participants will be kept updated on the progress of the research and will be provided with a copy of the final thesis if desired, or a link to where it can be accessed.

As this investigation involves Yukon First Nation involvement in management planning, I should disclose that I am employed by White River First Nation. This will not result in any conflict of interest as I do not have any involvement in the Tagish River Habitat Protection Area planning process in a professional capacity. This research will benefit White River First Nation

as it will other First Nations who are involved in these processes, as well as those in similar planning processes.

By agreeing to participate in this research, you will be contributing to the success of co-management in the Yukon, as the thesis will make recommendations for the inclusion and use of Indigenous Knowledge in this management plan.

I will be happy to answer any questions you may have regarding this research before consenting to be involved.

If you wish to communicate with my supervisor regarding this research, please contact Professor Leslie King at (email removed).

I, _____, have read and understand the purpose, intent, and details of this research. I agree to participate as a respondent to an interview, and that my responses will be used for the purposes described above in this research.

X

Respondent

X

Date