WILDERNESS PERCEPTIONS OF VISITORS TO THE MUSKWA-KECHIKA MANAGEMENT AREA, BRITISH COLUMBIA

by

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THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS
IN
NATURAL RESOURCES AND ENVIRONMENTAL STUDIES

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

September 2019

Abstract

The Muskwa-Kechika Management Area (MK) in northeastern British Columbia, Canada is approximately 6.4 million hectares in size, with about 27% in parks and protected areas. I conducted and analyzed qualitative in-depth interviews, with the focus on the social perception of wilderness amongst users of the MK. Results indicate that users feel the MK is a prime wilderness area with exceptional opportunities to experience wilderness attributes such as solitude, both on the periphery and in the interior of the MK. To experience peace and quiet is one of the primary reasons for a visit to the MK. Where resource activity is encountered is critical to the wilderness experience. The closer a development is to the highway or in the beginning of a trip is more acceptable. Findings from this study can assist organizations such as the MK Advisory Board in identifying how specific resource development proposals might impact various wilderness experiences.

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Glossary

ATV – All Terrain Vehicle:	In the context of this research ATV is a four-wheel vehicle that is used to travel off-road.
Fort Nelson area:	The town of Fort Nelson and smaller communities to the west along the Alaska Highway.
Natural Resource Development:	Oil and gas, forestry, mineral extraction, wind power.
Quad:	In the context of this research Quad has the same definition as an ATV.
Users of the MK:	Users of the MK in this research refers to interviewees who have visited and recreated in the MK and also non-direct users (those who have not).

Acknowledgements

I would like to express my very great appreciation to my supervisor Dr. Pam A. Wright who with endless support, professionalism, and inspiration guided me through this thesis work. Walking out of Pam's office after a meeting made me feel confident and ready to take on the next challenge in my research. Pam was not only my supervisor but also a good friend; a family friend.

My special thanks to my graduate committee members, Dr. Farhad Moghimehfar and Dr. Kathy Parker who with their expert knowledge enhanced my thesis work with useful critiques and valuable support.

I would like to thank The UNBC Muskwa-Kechika Endowment Fund for partially funding my research. My special thanks are extended to Wayne Sawchuk and his crew at MK Adventures for the horseback expedition I did to the Muskwa-Kechika Management Area in summer 2017. To other participants on that trip I would also like to say thank you.

My gratitude to the individuals who guided me in identifying interviewees to get me going with my research. To the interviewees who took part in this research I am very grateful, your time spent and the information you shared with me was much appreciated. I would like to thank Richard Pattinson for his time spent on proofreading my thesis.

Finally, I must express my profound gratitude to my family for the support and continuous encouragement throughout my study. To my wife Steinunn and son Jonatan, thank you for the thousands of kilometers we travelled together around British Columbia due to my research. To my two older sons, Runar and Brynjar, thank you for your support and assistance in transcribing interviews. My deepest love to you all.

1.0 Introduction

Discourse about wild nature, or wilderness, has a long history. The industrial revolution in the late 17th and into the18th century, with its expanded cities, pollution, and poverty, had an impact on how the western world perceived nature and wilderness. At that time, discussions about wild nature were associated with the benefits of natural settings. In the 19th century, wilderness had a negative connotation, something dangerous and unknown to humans. As a counterweight to growing cities, wild nature became more attractive to the public in the 19th century, and concepts such as conservation and protection of nature came into political discussion in countries like the United Kingdom, Australia, the United States, and Canada. Eventually, landscapes that had been free of human manipulation were seen to require protection (McDonald, Wearing, & Ponting, 2009).

The first legislation with respect to wilderness was the US Wilderness Act in 1964 (Wilderness Act, 1964). Subsequently, the US Wilderness Act has been used as a basis by many countries when making their own legislation or policies concerning wilderness areas (Olafsdottir & Runnström, 2011). Most wilderness definitions have an ecological component and a social component (Bastmeijer, 2016) typically identifying the importance of protecting the natural environment and providing for wilderness visitor experiences. However, definitions are variable because the idea of wilderness is an abstract concept (Bertolas, 1998; Bosangit, Raadik, Shi, & Cottrell, 2004). Consequently, many research studies conducted in this field have focused on the study of wilderness perception (Flanagan & Anderson, 2008; Larkin & Beier, 2014; Shultis, 1999).

For several reasons, it is important for managers of wilderness areas to understand visitor's attitudes and perceptions of the area. Visitor perceptions influence the characteristics

that make the wilderness experience acceptable. In addition are the distinctions between what managers of wilderness areas think are acceptable conditions versus what visitors to those same areas feel are acceptable (Shin & Jaakson, 1997). Diversity among wilderness users, with respect to their perception of wilderness, is something that management of wilderness areas should recognize, and the challenge for management is to try to characterize this diversity. Such variability leads managers to acknowledge visitors' input in defining the wilderness experience to ensure that visitor expectations can be met (Martin, McCool, & Lucas, 1989; Saayman & Viljoen, 2016). By doing this they can provide opportunities that satisfy this diversity (Dill, 1998).

1.1 The Muskwa-Kechika Management Area

My research focused on an area in northern British Columbia (BC), the Muskwa-Kechika Management Area (MK), an area approximately 6.4 million hectares in size (see figure 1). Established in 1998 through legislation by the BC government, it is known for its largely unroaded nature and cultural, ecological, and geographical diversity. The wilderness inside the MK is somewhat different from other known wilderness areas, as apart from the approximately 27% that is designated as parks and protected areas, industrial activities like oil and gas, forestry, and mining are allowed. This potential exploitation of natural resources is why the area has informally been referred to as a 'working wilderness' (Crane Management Consultants, 2008). The preamble in the MK Act states the following:

> WHEREAS the Muskwa-Kechika Management Area is an area of unique wilderness in northeastern British Columbia that is endowed with a globally significant abundance and diversity of wildlife;
>
> AND WHEREAS the management intent for the Muskwa-Kechika Management Area is to maintain in perpetuity the wilderness quality, and the diversity and abundance of wildlife and the ecosystems on which it depends while allowing resource development and use in parts of the Muskwa-Kechika Management Area

designated for those purposes including recreation, hunting, trapping, timber harvesting, mineral exploration and mining, oil and gas exploration and development;

AND WHEREAS the long-term maintenance of wilderness characteristics, wildlife and its habitat is critical to the social and cultural well-being of first nations and other people in the area;

AND WHEREAS the integration of management activities especially related to the planning, development and management of road accesses within the Muskwa-Kechika Management Area is central to achieving this intent and the long-term objective is to return lands to their natural state as development activities are completed (Province of British Columbia, 1998, para. 1).

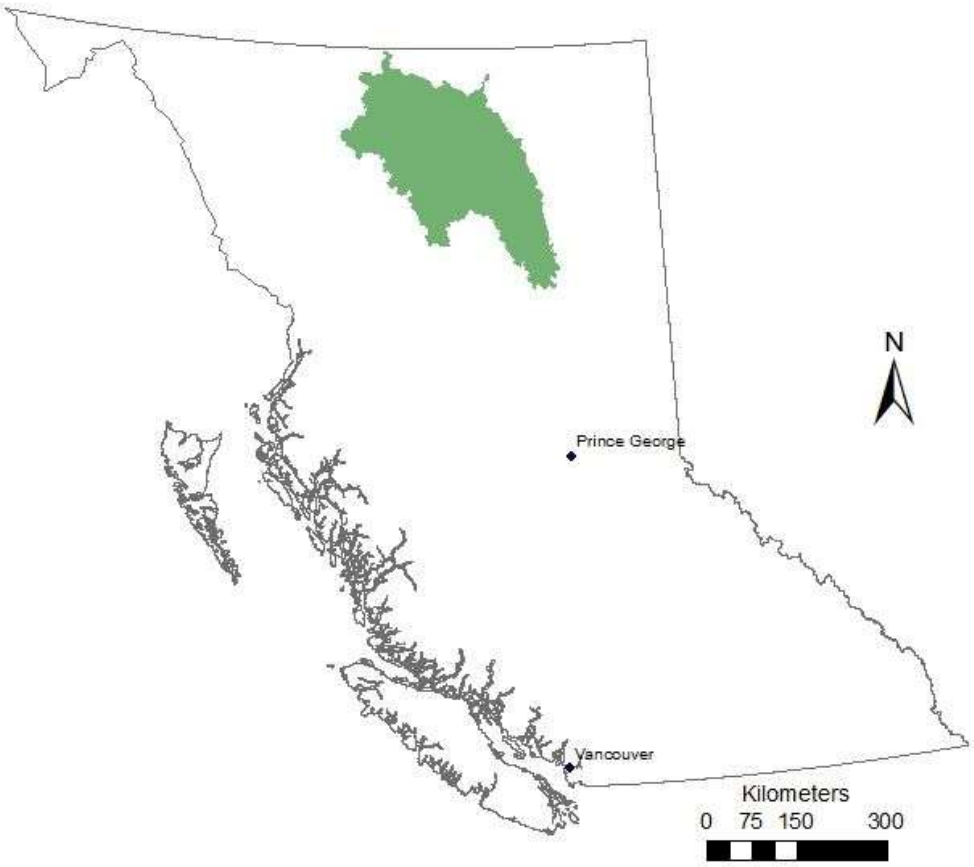

Figure 1. Location of the Muskwa-Kechika Management Area in British Columbia, Canada.

The area provides a diversity of wilderness opportunities for hunters, hikers (both front-country and backcountry), horseback riders, All Terrain Vehicle (ATV) users, and others. The uniqueness of the MK with its diversity in recreation activities, remoteness, and

mix of protected and resource development areas, calls for opinions from the users about their wilderness experience in the MK and what it is that adds to or detracts from their wilderness experience. Understanding the type of attributes that define users' wilderness perceptions and behavior is crucial to effective wilderness management.

1.2 Research Purpose and Objectives

The purpose of this research was to understand wilderness perception of MK users. More specifically my objectives were to:

1. Examine how users define wilderness in the MK.
2. Examine what defines the wilderness perception of MK users.
3. Examine the diversity of MK users' perceptions of wilderness.
4. Examine whether encountering natural resource development affects the MK users' wilderness experience.

This research contributes to a growing body of work developing methods to understand and measure wilderness attributes. Specifically, the research focused on the social perceptions of wilderness within user groups of the MK and examined how various wilderness experiences can be expressed in different ways. From a practical perspective, information from this project can be used by organizations such as the Muskwa-Kechika Advisory Board to help identify how specific resource development proposals might impact various wilderness experiences.

An important note is that in this research I examined wilderness perception from a western or settler perspective and did not attempt to represent indigenous cultural values for wild settings.

2.0 Literature Review

This chapter provides an overview of previous research on wilderness perceptions and measurement. First, I review the concept of perception and how it relates to natural environments. Second, I discuss wilderness attributes and those most commonly identified from previous research. In the third section, I examine how wilderness perceptions vary among people and what is associated with these differences. Finally, I discuss different ways to investigate wilderness perceptions.

2.1 Perception

Understanding wilderness perception requires an understanding of the nature of perception itself. Studies about perception date to the 17th century and have been defined as "…what we directly perceive… is a conscious presentation that closely parallels the excitation of sensory receptors" (Matthen, 2015, p. 2). Research where perceptions play a role has been conducted in various disciplines, such as psychology (Balcetis & Dunning, 2007), nursing (Macdonald, 2009), philosophy (Lovibond, 1988), and geography (Kliskey, Alessa, & Robards, 2004). In short, theories of perception state that we are aware of our surroundings because of how we experience them, although experience can vary widely and can be very individual (Matthen, 2015; Whitehouse, 1999). Whitehouse (1999) explains this with: "Can I, therefore, assume that what I see is the same as what you see? Or, more specifically, that what I understand from what I see is the same as what you understand from what you see?" (p. 103). Wilderness perceptions are the mental images consisting of both abstract or generic ideas generalized from direct experiences in wilderness or conceived of from the thought, or notion of the idea. Thus, wilderness perception will vary among visitors. For managers, understanding those perceptions and what influences them (both in positive

and negative ways) is important to answer questions such as: Does this landscape evoke or provide wilderness experiences for visitors? Is management doing enough to supply what visitors are seeking?

2.2 Attributes of Wilderness

2.2.1 What is wilderness?

Wilderness can broadly be defined as an area where human influences are held to a minimum and where people can enjoy solitude. Additionally, it is commonly thought of as an area that is remote, is distant from human structures, and is large in size (Aplet, Thomson, & Wilbert, 2000; McDonald et al., 2009; Olafsdottir & Runnström, 2011). The International Union for Conservation of Nature (IUCN) has different categories for protected areas where wilderness areas (Ib) are defined as a:"…large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition" (Dudley, 2008, para "IUCN Protected Area Definition," para 2). Some say that the concept of wilderness is ancient (Mittermeier et al., 2003), but others state that it has no consistent definition because users have different perspectives (Bosangit et al., 2004). Kliskey (1998) said that it all comes down to the individual's perspective explaining why the same environment can be experienced in so many ways. He stated: "The experience and image of wilderness induced in an individual are influenced by values, emotions, social and cultural influences, beliefs, and past experiences" (p.80). According to this, wilderness can both be something physical, but also experiential.

The dominant view of wilderness has been from western cultures' point of view, where people tend to view wilderness as 'empty of civilization' and an unoccupied landscape.

Indigenous people, on the contrary, think of wilderness as their homelands, with a strong human-nature relationship and a notion of the land as a cultural identity where they have passed it on through generations (Kliskey et al., 2004).

It is important to recognize that wilderness is a western/settler concept and for most Indigenous people the western ideal of wilderness as an unoccupied landscape is incorrect (see Elliot's dissertation, 2008, on 'Including aboriginal values in resource management through enhanced geospatial communication', and Kunkel's thesis, 2014, on 'Aboriginal values, sacred landscapes, and resource development in the Cariboo Chilcotin region of BC').

2.2.2 Wilderness attributes.

If wilderness is a state of mind, how can managers of wilderness areas understand how users identify a certain area as being wilderness? To users of wilderness areas, variability is important, as they visit these areas to experience different things, and their acceptability of a particular attribute can vary (Martin et al., 1989). Numerous studies of wilderness (Cole & Hall, 2009; Kliskey, 1994; Kliskey & Kearsley, 1993; Palso & Graefe, 2008; Shultis, 1999; Watson et al., 2007) have identified a suite of attributes that users of wilderness areas have identified as adding to or detracting from their wilderness experience (see table 1). In short, these become a broad list of attributes that can be used to define wilderness from a human perspective.

Solitude is probably the dominant attribute people think of when they hear the word wilderness. Solitude can mean experiencing a remote nature environment, experiencing freedom, being together with a small group of friends or being free from society´s pressures (Bosangit et al., 2004). In research conducted by Cole and Hall (2009, p. 26), they asked:

Table 1.
Common attributes identified in research on wilderness perceptions.

Quality of wilderness	Characteristics	Attributes
Solitude	*Use levels*	No commercial recreation
		No human presence
		Not seeing other people
		Opportunity for solitude
		Sense of freedom
		No outside sounds (e.g., motorized)
Remoteness	*Access*	Difficult place to access
		Remote from cities or towns
		A place without motorized travel
		Remoteness
		Expectation of rescue
		Feeling of being far from civilization
Naturalness	*Vegetation*	No evidence of non-native species (plants, animals)
		Large size (takes 2 days to walk across)
		Lack of infrastructure
		Naturalness
		Concerns of ecological impacts
		Opportunity for wildlife sightings
Undeveloped	*Structures*	Opportunity for off-trail travel
		No obvious campsites at destination
		Getting feet wet crossing creeks and streams
		A place without maintained huts/shelters
		Little sign of natural resource development
		No evidence of human impact

"What characteristics or qualities make a wilderness experience different from other experiences?" Of all the attributes, solitude was the most commonly mentioned (by a third of the respondents), and quietness (silence) was also mentioned. Solitude has not been measured directly in many studies, rather researchers have focused on surrogate measures such as perceived crowding, the tolerance of encounters of other visitors, and where specifically in a geography encountering occurs - the interior or the periphery of the wilderness (Martin et al., 1989; Stankey, 1971). In some areas, restrictions have been set, either in group sizes or in

access to certain places within the area. These restrictions increase the likelihood of positive experience for the users (Higham, 1998).

Also, in Cole and Hall's 2009 study, remoteness was identified as a defining, albeit secondary, attribute of wilderness quality. Just under ten percent of respondents mentioned remoteness. How accessible wilderness areas are often defines their remoteness. If the area has open access or is easily accessible it is often not thought to be remote, compared to if it is so remote that it takes a long time to get there by hiking or horsebacking – or motorized travel. Attributes related to remoteness that have been raised in questionnaires are how distant the area is from cities or towns, and the expectation of rescue (Kliskey, 1994; Lachapelle, McCool, & Watson, 2005). Danger is sometimes mentioned as an important related attribute; where remoteness means that help is far from immediate. Remoteness of a specific area is sometimes measured by buffering distances from roads or man-made structures; however, the appropriate size of the buffer depends on the mode of travel, the experience level of the visitor and terrain characteristics (Aplet et al., 2000).

The importance of naturalness as a wilderness attribute has been explained as aspects of forest and vegetation (Kliskey & Kearsley, 1993) that are perceived as unmodified in combination with a lack of infrastructure (Lachapelle et al., 2005). For some users, if an ecosystem has non-native species, including animals, vegetation and fish stocking, and is losing its native ones, it is not perceived to be natural anymore. Another definition of naturalness, that users have mentioned in questionnaires is that the area needs to be large enough to take two days to walk across. Although conceptually this might fit better under the attribute of remoteness, Higham (1998) and others identify this as a dimension of the naturalness attribute.

The attribute ‘undeveloped’, or the absence of the evidence of humans, can have a strong impact on the experience of wilderness users. For example, experienced backcountry users think that developed campsites and bridges over watercourses have a negative impact on their wilderness experience, in contrast to the views of less experienced wilderness users (Higham, 1998). This concept can be expanded beyond the physical human footprint to include the sights and sounds of humans and development.

Some studies have used open-ended questions to elicit attributes that have either positive or negative impacts on the wilderness experience. Other researchers have used a list of attributes where users are asked to weight these attributes (e.g., from the most desirable to the most undesirable; Lutz, Simpson-Housley, & Deman, 1999; Shultis, 1999). Attributes that have been on those lists but have been less researched are remoteness from cities, the presence or absence of commercial recreation, litter, wildlife, and compatibility with other resource uses like logging (Flanagan & Anderson, 2008; Lutz et al., 1999; Shultis, 1999). Researchers have also asked users to weight statements like ‘the landscape felt big’, ‘I often felt my safety was at risk’, or ‘I felt that I was free from the clock’ (Glaspell, Watson, Kneeshaw, & Pendergrast, 2003; Palso & Graefe, 2008).

Variation in the list of attributes of importance demonstrates what makes the experience of visiting wilderness memorable and how different types of users experience the wilderness in a different way. As visitors’ and managers’ perceptions may differ, it is important for managers of wilderness areas to get a better understanding of how visitors tolerate different settings and attributes and how these affect their experiences (Martin et al., 1989).

2.3 How do Perceptions Vary?

One thing that differentiates users to wilderness areas is the type of motivation they are seeking to experience, like adventure, exploration, and conservation (Bosangit et al., 2004). Different combinations of attributes such as solitude and remoteness can influence the ability of visitors to maximize their wilderness experience. Dawson, Newman, and Watson (1998) found that some attributes (e.g., psychological, social, solitude, and natural environment) contributed to satisfaction whereas others (e.g., user impacts and user encounters) contributed to dissatisfaction.

Numerous studies have been conducted to identify these attributes and their sub-attributes. Foundational research by Hendee, Catton, Marlow, and Brockman (1968) and Stankey (1973) indicates that while spending time with others is often a motivation for visiting wilderness, the experience most often takes place in small social groups. In reality, solitude may be less related to being all alone in the wilderness than 'being alone together' with a group of friends or members of one group.

What marks the distinction between wilderness users and how they perceive their surroundings can vary. Is it their nationality, experience level, activity, age, gender, rural vs urban origin or length of stay? Researchers have tried to find answers to these questions by classifying visitors into groups, such as into wilderness purism groups (see figure 2) and identifying what attributes specifically add to the wilderness user´s experience and what

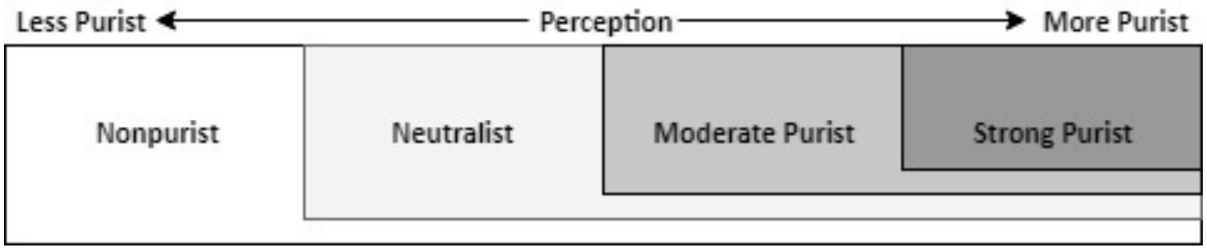

Figure 2. Four classes of the US Wilderness Purism Scale (Larkin & Beier, 2014).

attributes detract from it. In eight studies conducted by Vistad and Vorkinn (2012) in several places in Norway, researchers found that nationality matters, especially in one of the studies where the locals had the least puristic attitude of the visitors to the studied area. Other studies have found similar results, where overseas visitors tend to be more sensitive to the setting (Higham, 1998; Sæþórsdóttir, 2010).

Whether users are urban or rural residents seems to matter as identified in research conducted in BC, Canada (Lutz et al., 1999). The term ‘wilderness' differed significantly in those areas that urban versus rural residents considered to be wilderness. As identified in that study, participants valued wilderness for different reasons, such as recreation, earning a living (mostly rural residents), and aesthetic beauty.

Research suggests that more experienced users are more sensitive to changes in some attributes, such as seeing too many people and campsite encounters, whereas the less experienced users are more concerned about the weather (Cole & Hall, 2009). The type of activity users are seeking matters too, and that can also be related to how experienced they are. In Vistad and Vorkinn’s (2012) research, wild reindeer hunters were classified as strong purists, but second to visitors to Svalbard, Norway, who were the strongest purists of all the visitors researched in all the studies. A visit to Svalbard, which is very remote, is very time-consuming and expensive, and because of that, only the most experienced visitors go there.

When looking at age, it seems as if the younger the visitors are the more likely they are to have less puristic attitudes. As they get older they move to the right on the purism scale towards being a strong purist (Higham, 1998).

Whether visitors to a wilderness area are day-trip users or overnight users seems to matter, as the latter group are likely to be classified as strong purists and spend more time

hiking off-trails (Cole & Hall, 2009; Lutz et al., 1999). In terms of encountering other users, location is an important thing. For example, hikers encountering others on trails or campsites are more likely to be tolerant if encounters happen on the periphery of a wilderness area rather than in the interior. Likewise, the tolerance of river floaters varies depending on whether they see other people on the river, at the campsites along the river, or at the river access point (Martin et al., 1989). In contrast, in a study conducted in Gates of the Arctic National Park and Preserve, Alaska, backcountry users thought that meeting other people was kind of pleasant and had a caring aspect, as the area is large and remote (Glaspell et al., 2003). Different perceptions between user groups based on activity (inter-activity) have also been identified. For example, motorized users and horseback riders have a negative impact on the experience of non-motorized users and hikers, but the patterns are less obvious than with intra-activity participants (Dill, 1998).

The socio-demographic background of people and their previous use of wilderness can influence their perception of wilderness. Research shows that race and ethnicity are examples of factors that can affect how people perceive wilderness and whether they want to visit it (Buijs, Elands, & Langers, 2009).

2.4 How to Measure Wilderness Perceptions

Research about wilderness perceptions has been conducted using qualitative studies (McDonald et al., 2009), quantitative surveys (Barr & Kliskey, 2014; Shultis, 1999), surveys in combination with mapping (Carver, Evans, & Fritz, 2002; Flanagan & Anderson, 2008), photo-based surveys (Habron, 1998), and with a mixed methods approach (Bertolas, 1998; Glaspell et al., 2003). The following is a brief review of methods that have been used to measure or elicit perception among wilderness users.

2.4.1 Purism scale.

One way of measuring wilderness perceptions is to classify users, based on the wilderness perceptions they hold, by using the Wilderness Purism Scale (or alternatively the Wilderness Continuum; Hendee et al., 1968; see figure 2). Early use of the purism scale required 60 attributes to differentiate between users, and the intent was to examine individual attitudes toward recreational experiences, environmental conditions, and wilderness management, and how these attributes varied between wilderness users (Vistad & Vorkinn, 2012). Stankey (1973) designed a shorter version of the scale with only 14 items to identify wilderness attitudes that discriminated between users based on purism groups. This method is predominantly used in surveys where participants are asked to give their opinion on various attributes and answers can be on a Likert scale from 1-5 or 1-7 where one can mean 'strongly disagree' and seven 'strongly agree'. The number of attributes used in surveys ranges from highs of 16-19 (Palso & Graefe, 2008; Shultis, 1999; Watson, Martin, Christensen, Fauth, & Williams, 2015) and a low of eight attributes (Vistad & Vorkinn, 2012).

2.4.2 Photo elicitation.

Photo elicitation is a predominant technique in landscape perception research and has been used since the mid-seventies (Fairweather & Swaffield, 2001; Manning & Freimund, 2004). Broadly speaking, photo-based studies have been used both with accompanying (e.g., online) surveys using quantitative methods (Barr & Kliskey, 2014), and with in-depth qualitative interviews (Fyhri, Jacobsen, & Tømmervik, 2009). What Scott and Canter (1997) found in a qualitative study, where participants were asked to classify photos of a familiar area, was that if the participants were familiar with the area (had visited before), the classification was different than if they had not been there before. This suggested that

knowing an area easily brings back memories when seeing photos of it. One advantage of using photo-based approaches compared to on-site studies is that the respondent can look at several landscapes simultaneously through photographs. On the other hand, it can be a challenge to obtain good quality photos to use in photo-based studies (Jacobsen, 2007), and photos still capture only limited dimensions of the visitor experience.

The convenience of using photography in research on visual values or landscape perception is widely recognized. Photography has been used in studying visual and scenic values of a community (Palmer, 1997) and in interpretive studies of how experiences of landscape vary between two different user groups (Fairweather & Swaffield, 2001). There are also advantages of using photography in research about wilderness perception compared to other methods such as narrative and/or numerical descriptions for example. By using photos, researchers can set the standard of quality, as all participants are looking at the same photos; for instance, in terms of crowding, all participants are evaluating the same number of people seen on the photos. Also, by using this technique, researchers can focus on studying one attribute at a time by changing only that attribute, such as the number of people seen, while holding other attributes constant. By using other methods, participants might have to make assumptions about these attributes and those assumptions might vary (Manning & Freimund, 2004).

2.4.3 Visitor employed photography (VEP).

When VEP is used, visitors to a certain area receive cameras from the researcher and are asked "…to photograph scenes, areas, or items, according to stated research criteria" (Jacobsen, 2007, p. 242). VEP has been used to examine what attracts visitors to certain sites, all the way to measuring how people perceive natural environments (Hansen, 2016). One

challenge with this method is that researchers might not get photos matching their given research criteria, as they have no guarantee of getting back photos of certain features that were asked for in the research questions (Taylor, Czarnowski, Sexton, & Flick, 1995). In the early stage of VEP, visitors were given cameras to use on their trip and had to hand them back to the researcher after the trip. In a Swedish study conducted by Hansen (2016), visitors were asked to use their cell phones to take photos and the researcher met the visitors after their visit and downloaded the photos to a field laptop. In very remote areas with many entrances and exit points, it could be a challenge for the researcher trying to encounter visitors before and again after they visit the area, especially in areas with low use levels (Jacobsen, 2007).

2.4.4 Emerging technologies.

Technological changes give researchers an opportunity to get much more detailed information from users, no matter how they are travelling. GPS-based approaches, where users are asked to either carry a special GPS receiver or a small clip which they can hang on their backpack, are one such technique that gives researchers valuable information about a pattern of use of an area (Doherty, Lemieux, & Canally, 2014). A very innovative technique on tourist travel and behavior was used in the Sense-T Tourism Tracking Project in Tasmania (Hardy et al., 2017). A smartphone and an app were used in this research and each participant was given a smartphone with information about the research. This technique allowed the researchers to track the route users took, how they moved around and what possibly affected their decisions. They could see the time each one spent at a lookout, and the app generated pop-up surveys regularly to capture the users´ insight at different locations. The biggest challenge for researchers would be the cost of the devices, GPS signal and/or battery life, and

when conducting studies in very remote areas where trips vary from day-long trips to a couple of weeks. Additionally, these techniques all require the researcher to intercept the visitor pre- and post-trip.

2.4.5 Mapping using Geographical Information Systems (GIS).

GIS gives the possibility to organize and map multiple perceptions of wilderness (Carver, Tricker, & Landres, 2013; Kliskey & Kearsley, 1993). Mapping wilderness attributes is a critical tool in management, specifically when wilderness is just one of the values being managed. On questionnaires, users rate their desirability of a list of wilderness attributes on a Likert scale (e.g., 1-5). Users are then classified into purism groups, where users with a similar definition of the wilderness setting are grouped together. A map layer for each group is produced to enable comparison (Carver et al., 2002; Flanagan & Anderson, 2008). One value of this technique may be to identify areas that are not declared wilderness as claimed by legislation, but places wilderness users identify as such and like to visit.

In some studies, the researchers do not directly study visitors' perceptions, but instead use local wilderness legislation to guide the mapping, often referred to as 'objective-based' mapping approaches. The main attributes commonly used are: remoteness from settlement, remoteness from mechanical access, apparent naturalness, and biophysical naturalness (Carver & Tin, 2013; Olafsdottir & Runnström, 2011), although the specific attributes vary from area to area. Each attribute is mapped (e.g., a buffered distance to road access) with the thresholds potentially varying by user preference. Tolerance or preference for remoteness from roaded access may vary between strong wilderness purists like backcountry hikers to nonpurists like ATV users (Flanagan & Anderson, 2008; Larkin & Beier, 2014).

With increasing outdoor recreation, there comes pressure on management agencies to preserve areas that could be in danger of becoming non-attractive for wilderness users. Thus, a map of such areas could be very useful to control the traffic in some areas but still be able to offer activities that wilderness users are seeking (Kliskey & Kearsley, 1993; Larkin & Beier, 2014).

2.4.6 Survey-based methods.

Use of surveys or questionnaires, either accompanying photography or as a stand-alone technique, is perhaps the leading approach for studying wilderness perception, and has been used in a number of studies (Carver et al., 2002; Flanagan & Anderson, 2008; Larkin & Beier, 2014). It is important for managers of wilderness areas to know the demand for a wilderness experience and the variability between different types of user groups, such as hikers and motorized travelers (Saayman & Viljoen, 2016). Quantitative approaches such as these are crucial in order to generalize the results from a study as well as provide a breadth of understanding of the ideas being researched (Flanagan & Anderson, 2008). Cole and Hall (2009) note that one limitation of predefined lists of attributes is that they limit or constrain the identification of additionally important attributes.

2.4.7 Interview based methods.

When studying wilderness perception and wilderness experience of visitors to wilderness areas, researchers are looking to get a richer and thicker description of visitor's experience (Dorwart, Moore, & Leung, 2009). For instance, by conducting qualitative semi-structured interviews the researcher has the opportunity to ask participants follow-up questions to get them to expand on their responses. This can lead to stories told which often provide that rich and thick description the researcher is looking for, and that description can

also help results become more realistic. In addition, interview-based methods are more likely to detect important elements when wilderness perception and wilderness experience are being studied (Bertolas, 1998; Creswell, 2014; Farrell, Hall, & White, 2001; Fyhri et al., 2009), and can therefore give the depth this method usually provides.

2.4.8 Mixed methods.

In research where wilderness quality on the landscape is being studied, users are often asked to evaluate attributes on a bipolar adjective scale, according to their preference of visual aesthetic quality. This technique alone is not always the best method, as it might not elicit what users think is most important in terms of wilderness perception. Several studies have paired qualitative interviews and quantitative surveys when studying wilderness perception (Fyhri et al., 2009; Glaspell et al., 2003). Qualitative approaches can be helpful to identify which attributes have a significant influence on wilderness users' perception as the researcher can get a good understanding of "…the meanings that visitors associate with a given place and the experiences they receive there, and how wilderness and wilderness experiences fit into the larger context of their lives" (Glaspell et al., 2003, p. 63). Researchers usually get more detailed information from the interviewees and that information can be used to fully develop a quantitative survey. By using a combination of qualitative and quantitative approaches the researcher intends to get a deeper understanding of a research problem than by using either approach alone (Creswell, 2014).

2.5 Summary

Wilderness provides myriad experiences, and people's perceptions of wilderness can be a powerful tool for managers of wilderness areas in preserving the resources, especially for recreational opportunities. This review of research demonstrates that perceptions can

differ significantly, not only between users but also between user groups. It is therefore important for researchers to choose the best method, or combination of methods, that best meets their research purpose and objectives.

3.0 Case Study of the Muskwa-Kechika Management Area

The Muskwa-Kechika Management Area in northern British Columbia was established in 1998 when the MK Act was passed (Province of British Columbia, 1998), covering approximately 6.4 million hectares. The management goal for the area is to sustain the wilderness values of the area and ensure that wildlife and habitats are maintained over time. The area is also known for the potential for renewable and non-renewable natural resource uses, including: recreation, hunting, oil and gas, mineral extraction, forestry, and wind power. Management activities such as planning, development, and management of road access within the MK are aimed at achieving the management goal (Killam, 2015; Suzuki & Parker, 2016). Because of its largely unroaded nature and geographical diversity, the MK provides a wide range of wilderness opportunities including hunting, hiking, horseback riding, and ATVing.

The MK is shaped by three major landform components: Northern Rocky Mountains and associated foothills; the Rocky Mountain Trench; and the Cassiar Mountains (Rutledge & Davis, 2005). The geographical location of the area is in the north-central and northeast portions of British Columbia, where the boreal plains and muskeg regions of the east meet the rugged Northern Rocky Mountains and the Cascades of the west. The area is named after two major rivers that flow through the area, the Muskwa River in the east, and the Kechika River flowing through the Rocky Mountain Trench in the northwest. There are approximately 50 undeveloped watersheds found within the area. The MK is notable for its mountains and valleys and big portions of it are at high altitude, with some of the mountain peaks reaching up to around 3,000 m. (“Muskwa-Kechika Management Area,” n.d., sec. Geography, see references)

The MK is a unique model for resource planning and sustainable land use. Approximately 27% of the MK is designated as provincial parks and protected areas, which are adjacent to areas for special resource management where resource development such as oil, gas, forestry, and mining is allowed under special conditions (Heinemeyer et al., 2004). Parks of all sizes occur within the MK. The largest one, Northern Rocky Mountains Provincial Park, is approximately 665,000 hectares, and one of the smaller ones is Prophet River Hotsprings Provincial Park, at only about 185 hectares (Ministry of Environment, 2019a, 2019b). Human settlements can be found within the MK, but they primarily consist of small hamlets (e.g., Toad River) and individual businesses (e.g., Northern Rockies Lodge) or ranches. Regionally, the MK is adjacent to the larger communities of Fort St. John, Fort Nelson, Dawson Creek, and Mackenzie.

3.1 Climate

The northern part of the MK is under the influence of cold Arctic air with low temperatures during the winter. Portions of the east side are in the rain shadow of the Rocky Mountains, thus receiving lower amounts of precipitation. There is generally more snow at higher elevation, but sometimes temperature inversions occur resulting in warmer conditions at a higher elevation with less snow than at lower elevation. At higher elevations, it can start snowing around the end of September, but more typically in the middle of October for lower elevations ("Muskwa-Kechika Management Area," n.d., see references).

3.2 Traditional Territories

The lands known as the MK are within the traditional territories of the Kaska, Tsay Keh Dene and Treaty 8 First Nations. There are several indigenous communities within these traditional territories, both within and adjacent to the MK ("Muskwa-Kechika Management

Area," n.d., sec. First Nations, see references). Prior to the creation of the MK, the Kaska Dena Nation completed a letter of understanding with the BC Government, recognizing the Nation's rights and obligation to the area, and its culture and heritage. The MK Act acknowledges the "long term maintenance of wildlife characteristics, wildlife, and its habitat is critical to the social and cultural well-being of First Nations and other people in the area" (Crane Management Consultants, 2008, p. 12).

3.3 Governance

The Muskwa-Kechika Advisory Board (M-KAB) was created through the legislation of the MK Act. It is a multi-disciplinary advisory board where members are non-governmental representatives, First Nations, local stakeholders, and industry stakeholders. The role of the Board is to give recommendations to the BC government about the management of the area and to make sure that all activities taking place within the area are conducted according to the MK Act. A number of other groups work under the aegis of the Advisory Board including a wilderness working group and the MK - University of Northern British Columbia (UNBC) research partnership group (Crane Management Consultants, 2008).

3.4 Resource Management Zones

The MK consists of four types of resource management zones identified through the Land and Resource Management Planning (LRMP) process. The zones (see figure 3) consist of: Protected Area Zone, Special Wildland Zone, Special Resource Management Zone, and Enhanced Resource Management Zone (Suzuki & Parker, 2016).

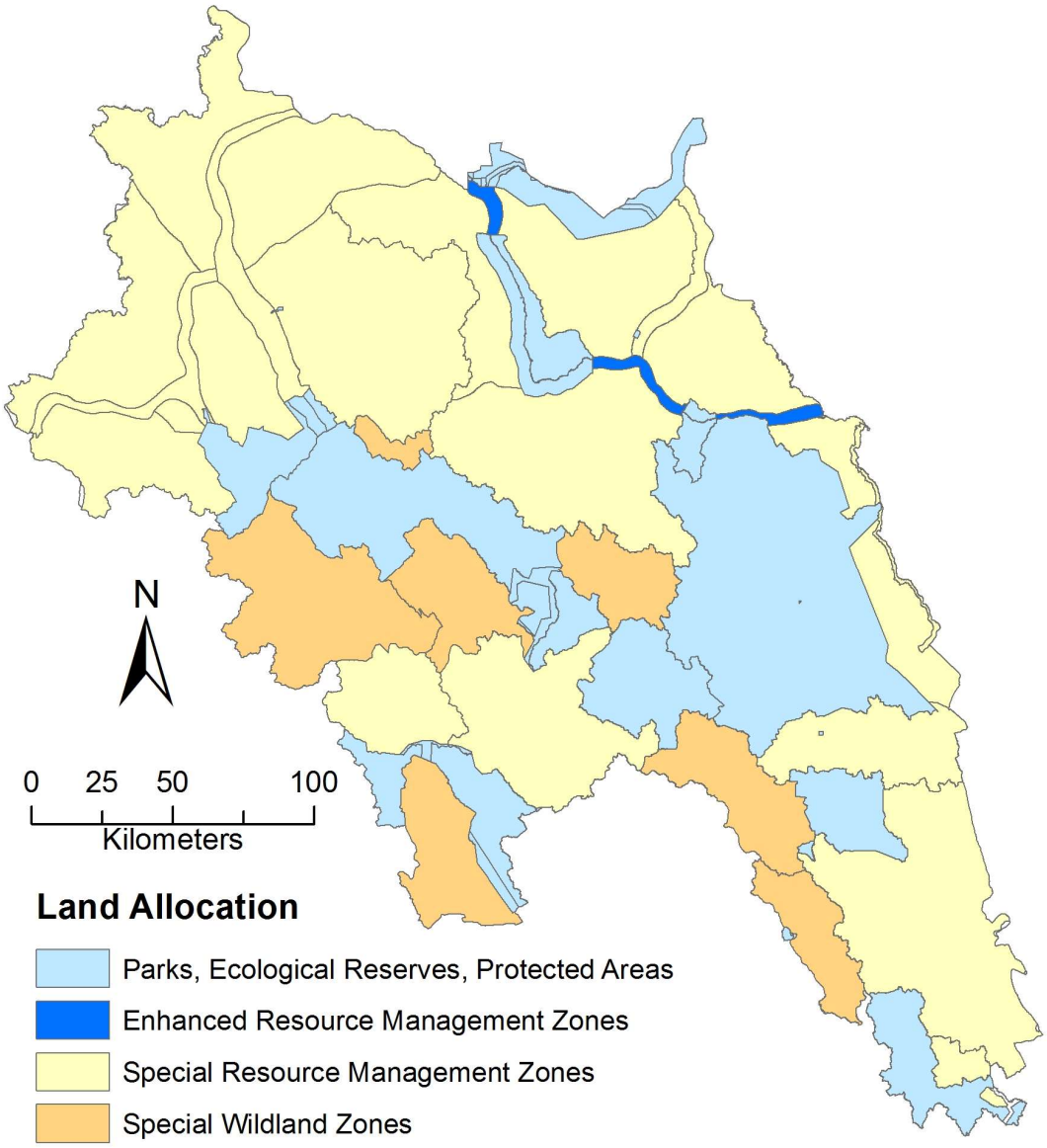

Figure 3. Resource Management Zones within the Muskwa-Kechika Management Area (Suzuki & Parker, 2016).

3.4.1 Protected areas.

Natural, cultural heritage, and/or recreational values are the reasons for the protection of these areas. Included within this zone are provincial parks, ecological reserves, and protected areas. Generally, resource development activities are prohibited within these areas although there are limited access provisions to support resource management within the areas designated as Protected Areas.

3.4.2 Enhanced resource management zone.

There are two Enhanced Resource Management Zones inside the MK, the Khak´l Tse (Buffalohead) at Fort Ware, and the Alaska Highway Corridor. Both zones have fewer restrictions than the other zones when it comes to industrial development but allow for responsible development with respect to wilderness character and wildlife values of the MK. The emphasis in the former zone is on the optimization of timber growth and utilization. In the Alaska Highway Corridor, the emphasis is on enhancing recreation and tourism resources.

3.4.3 Special resource management zone.

This zone allows for some industrial development, including the construction of access corridors such as temporary roads, and in some areas construction of permanent roads.

3.4.4 Special wildland zone.

Within this zone, the emphasis is on ecological conservation, wilderness, and commercial and non-commercial backcountry recreation. With strict operational restrictions, some natural resource development is allowed inside the areas, such as mining with non-road exploration or temporary access roads, but timber harvest is prohibited.

3.5 Access

Large portions of the area are unmodified by roads or linear features, which can give users a special wilderness experience, whether they are motorized users or non-motorized. There is a special Access Management strategy for the MK to make sure users can get the full range of experiences within the area, but also to ensure that conflicts between users and the wildlife are minimized (“Muskwa-Kechika Management Area,” n.d., sec. Reports, see references). The Alaska Highway crosses the northeast corner of the MK and provides the

major existing ground access to the area, but approximately 230 km of the highway is inside the MK border, from Steamboat Mountain to Liard River Hot Springs. In addition, as seen in figure 4, there are roads and well-developed trails (many from guide outfitter use), which make many parts of the area accessible by a combination of horseback, foot, ATV, and snowmobile, depending on season and conditions. Apart from that, access into the area is

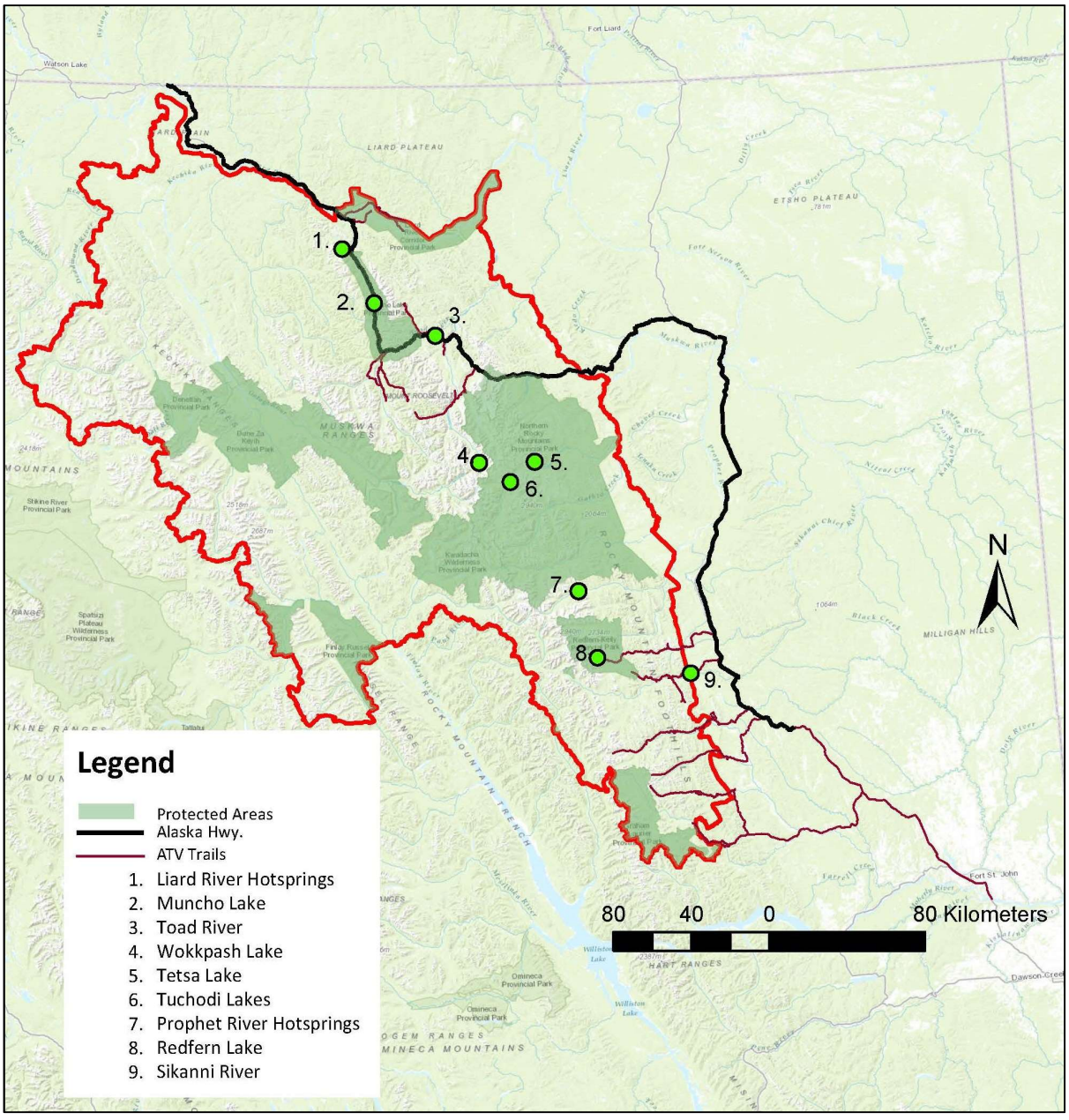

Figure 4. Map of the Muskwa-Kechika Management Area showing designated All-terrain vehicle (ATV) trails, and places frequently mentioned in this research.

limited to horse and hiking trails, ATVs on designated ATV trails, access on the rivers, and by planes (Rutledge & Davis, 2005).

Visitor use numbers are largely non-existent, although some of the campgrounds (e.g., Liard River Hot Springs) have limited occupancy information. Visitor use of front-country camping areas ranges from being infrequent to occasional busy periods (McConnachie & Shultis, 2001). Weekends can be busy along the Alaska Highway, largely because of recreational vehicle (RV) overnight stops. Only Liard River Hot Springs Provincial Park has relatively consistent high volumes of seasonal use due to the hot springs in the area. Use levels in the MK beyond the highway are more or less non-existent, which limits how users can be accessed for feedback on wilderness perceptions.

From the southernmost point of the MK and up along the east side to the northeastern part (a distance of 700-800 km), there are approximately 140 BC Parks tent or RV sites located within 17 campgrounds. In addition, there are a few privately owned campgrounds. Trails are frequently located adjacent to many of the campgrounds along the Alaska Highway. Some of these trails are multi-use for hikers, motorized users, and horseback riders. As seen in figure 5, there are five ATV trails in the northeastern part of the area that are open to motorized vehicles, whether they are quads or 4x4s (Tourism Northern Rockies, 2018). In addition, there are designated ATV trails in the southern part of the area, e.g., leading into Redfern Lake (see figure 4). There is an ATV club in Fort St. John that, for example, schedules trips into the MK for its members. Each trail has a different restriction in terms of the weight of the vehicle, and how far off the trail one can go (10-400 m).

Due to relatively short summers, many of the recreational opportunities are limited from approximately the middle of June to the end of September. Not much is known about the number of recreational users in the winter time, but winter access into the area is largely limited to snowmobile use and aircrafts.

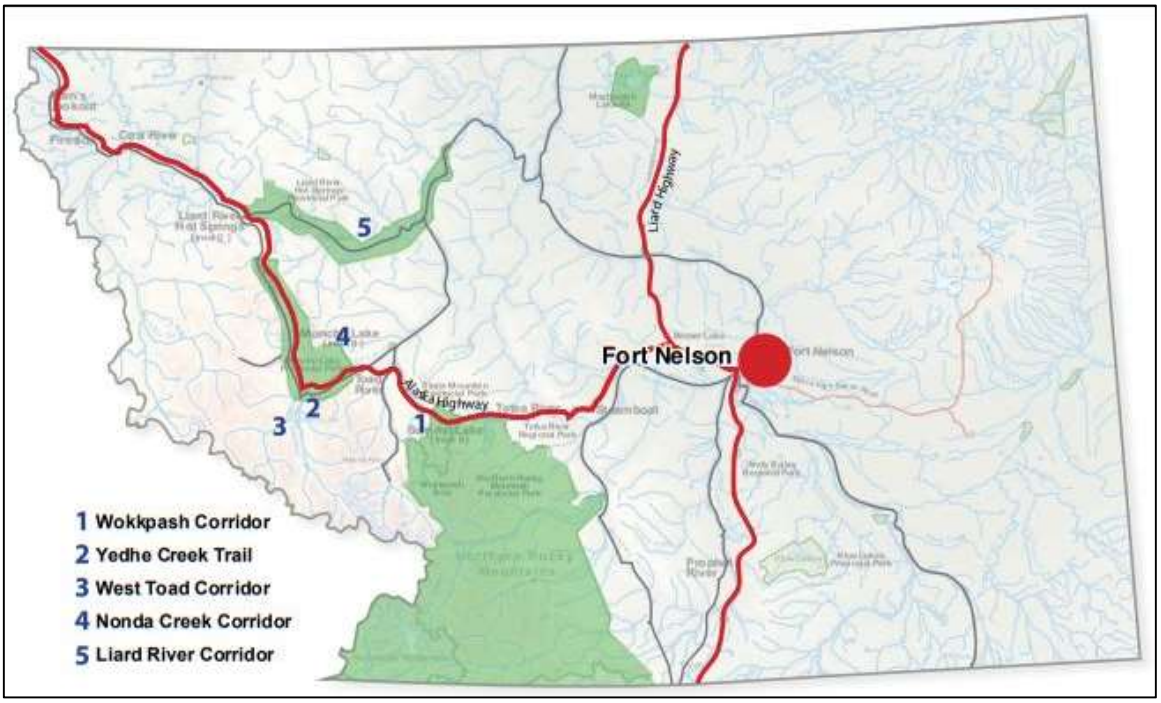

Figure 5. All-terrain vehicle (ATV) trails in northeastern Muskwa-Kechika Management Area.

Beyond the Alaska Highway in the north, there are limited roads into the Toad River area, and further west, into the Kechika Valley. Through the Tuchodi system, visitors can access the Tuchodi valley by using either trails or jet boats giving access further north into Chlotopecta Creek and beyond. Muncho Lake Park and Stone Mountain Park, in the northeast portion of the MK, have park trails. In the south part of the MK, there are more unsurfaced roads that enter the area, in the Prophet, Sikanni and Graham systems in particular, which makes the access into the southern portion relatively good.

For backcountry users of the MK, one method of transport is by air. One of the major outfitters offering this service is Liard Tours located on Muncho Lake, at the Northern

Rockies Lodge. Other outfitters provide air access to the MK from Fort Nelson and in the southern sections of the area. Flight costs are expensive, and the number of users is limited. Transport by jet boats is another way of getting users into the MK. Several guide outfitters offer this service specifically: Riverjet Adventures, Muskwa River Adventures, Tuchodi River Outfitters, and Stone Mountain Safaris. They all offer special services for hunters and fishers, with some general recreation tours offered as well.

3.6 Wilderness Experiences

Central to the MK legislation and management is the recognition of wilderness (along with wildlife and culture) as a core value to be maintained. Given the enormity of its size and the diversity of ecological, geological and wildlife values, the MK provides a wide array of wilderness experiences year-round. The remoteness and wild nature of the MK allow visitors to experience unique recreational opportunities, whether they visit for hunting, camping, hiking, or snowmobiling. As access into the area is limited, visitors to the more remote watersheds and mountain areas are looking for more primitive wilderness experiences such as fly-in hunting or fishing, horseback riding, paddling or hiking. Consequently, guides and outfitters provide a valuable role in providing access to the area, as shown in table 2.

Table 2.
Commercial recreation park use permits in the Muskwa-Kechika Management Area.

Activity	Number
Trail riding	1
Fishing and water activities (canoeing, river boat)	2
Guide outfitter	17
Air transportation	7
Transporter	3
Total	30

3.6.1 Recreation opportunities within the MK.

There is a wide variety of recreation opportunities in the MK, both for motorized and non-motorized users, and both guided and self-guided tours. Apart from the designated ATV trails mentioned above, there are opportunities for snowmobilers in the MK. They can access the MK by using the ATV trails and by travelling on the rivers. There are snowmobile clubs in Fort Nelson (Fort Nelson Snowmobile Club) and in Fort St. John (Northland Trail Blazers Snowmobile Club), and many of their members also do other types of motorized activity, such as ATVing.

There are many recreation opportunities in the MK for hikers and one of the popular hikes is the Wokkpash Trail, approximately 54 kilometers long into Wokkpash Lake, with good fishing opportunities (e.g., Bull Trout). In addition to the hiking trails, there are approximately 20 kilometers of roads (ATV accessible) leading to the trailheads.

Hunting in the MK is very popular and when hunting season opens, hundreds, if not thousands of hunters, flock into the area. Many hunters go in on their own and access the area either by jet boats, hiking or on horses. Elk and moose attract most hunters to the MK. There are also guided hunts where hunters are often flown in to camp, and these tours are frequently for trophy hunters. Stone's sheep and mountain goats are the most popular ones when it comes to trophy hunting.

Many of the trails along the Alaska Highway are multi-use trails, for motorized activity, hiking, and horseback riding. As it gets more remote, multi-use trails transition into horse trails. Guided horseback tours have been available in the MK for a long time, and one of the outfitters offering horseback tours is Wayne Sawchuk from MK Adventures ("Wayne Sawchuk and the Muskwa-Kechika," n.d., see references). Every summer Wayne takes

around 20 horses (about half of them pack horses) into the MK and spends the summer there where he offers four to five guided horseback tours, each one lasting two weeks. He takes users into the more remote areas of the MK where the only access in or out is by aircraft or jet boat.

As mentioned above, the Alaska Highway transects the northeastern edge of the MK and that portion facilitates easy access into the area. Although widely dispersed, there are campsites, lodges, trailheads and other facilities along the highway for both front-country users and for backcountry users who are heading into the more remote parts of the MK. Thirty-two Adventure Tourism policy tenures have been allocated within the area to help facilitate recreation use, with over half of them related to hunt camps (Garrity, 2013). Given the extensive size of the MK, the difficulties in access, and limited management presence, there is no formal tracking of visitor use numbers to the area.

3.7 Recreation Management Plan

A draft recreation management plan for the MK was published in 2005. The plan's primary purpose "[was] to produce an overview assessment of recreation resources in the M-KMA consistent with LRMP management objectives and strategies and the Muskwa-Kechika Management Area Act" (Rutledge & Davis, 2005, p. 2). The plan was also intended to help make sure that MK's wilderness characteristics are maintained. The plan identified a spectrum of recreation opportunities for both commercial and public recreation in the area as well as provided guidelines for reviewing commercial recreation applications. One of the more specific objectives was, for instance, to identify priority areas where further planning might be needed.

Throughout the planning process, there was a mix of open houses and interviews, where individuals had the opportunity to identify issues and concerns for recreation. Some of the most common concerns and issues mentioned were general management issues, enforcement issues, user conflicts, and increasing use levels.

In the recreation analysis process, data were collected on the level of recreation use, the demand for recreation opportunities and the value of outdoor recreation. A table with values, current situation, and assumptions was created where each resource management zone and/or recreation category was listed and its wilderness recreation opportunities (public and commercial) were identified, as well as the access mode for each area, use levels, and more. Future level of recreation use was also estimated.

To measure changes in conditions over time certain factors were supposed to be monitored, factors related to resource setting, social setting, and managerial setting. Unfortunately, the plan has not yet been implemented (Garrity, 2013), and therefore no monitoring has occurred.

4. Methods

This research was situated within a qualitative research paradigm, more specifically interpretivism, where I conducted and analyzed qualitative in-depth, semi-structured interviews. This interpretivist worldview helps the researcher to understand the interviewees' social perspectives by looking for the variety of views amongst them as they hold subjective meanings, or beliefs, about their experiences (Bryman, 2012; Creswell, 2014). The interviews were intended to provide the depth and meaning needed to help understand how people perceive wilderness and more specifically the wilderness nature of the MK (Flanagan & Anderson, 2008; Kliskey & Kearsley, 1993).

To reiterate, the purpose of this research project was to understand wilderness perception of MK users. More specifically to:

1. Examine how users define wilderness in the MK.
2. Examine what defines the wilderness perception of MK users.
3. Examine the diversity of MK users' perceptions of wilderness.
4. Examine whether encountering natural resource development affects the MK users' wilderness experience.

The first two sections of this chapter present the theoretical approach and the research design, setting the stage for the methods employed in order to try to address the research objectives. The population being studied is introduced, the sampling methods are described as well as the justification for data saturation, which is all part of the research design. The next section describes the process for data collection and analysis of the data. How

trustworthiness is gained, also described as rigor (Patton, 2002), and limitations of this research are presented in the last sections.

4.1 Theoretical Approach

A researcher conducting qualitative research is generally following an inductive exploratory approach, meaning that the study is not theory driven, but instead generates a theory (Bryman, 2012; Van den Hoonaard, 2015). An inductive approach is often referred to as a "bottom up" approach (see figure 6), where the process is building on the data collected at the beginning, followed by coding and identifying themes, developing them into patterns, and eventually forming a theory as the end point (Creswell, 2014). This study generally followed that approach, where I conducted the interviews, coded them and examined the data to identify meanings or themes. There was no new theory formed in the end, as much qualitative research does not always generate a theory (Bryman, 2012). As the research

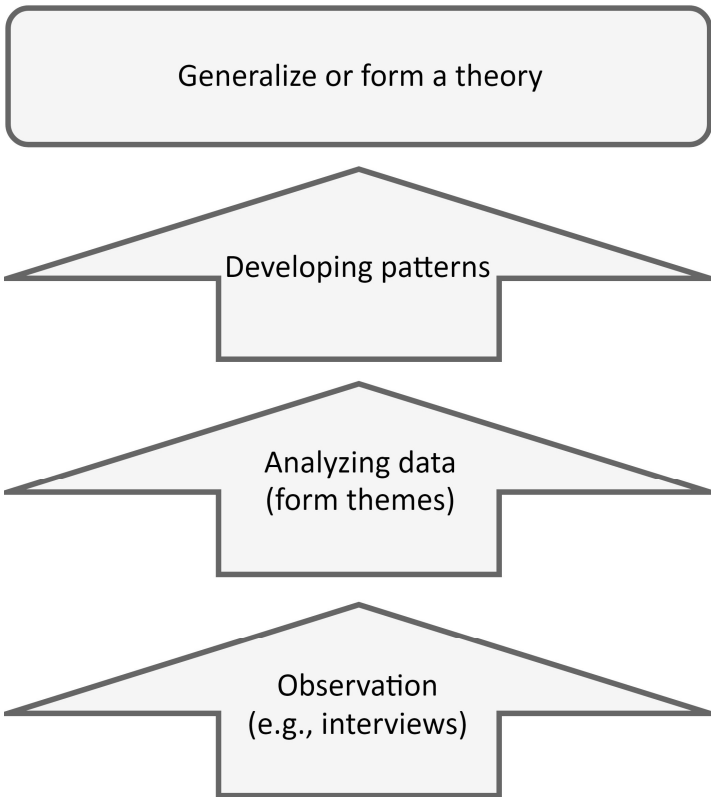

Figure 6. The inductive logic of qualitative research.

develops, a deductive approach can also play a role where "the researchers look back at their data from the themes to determine if more evidence can support each theme or whether they need to gather additional information" (Creswell, 2014, p. 186). My research predominantly followed an inductive approach.

4.2 Research Design

Qualitative research is in theory an interpretive research approach where the researcher focuses on learning and interpreting the meaning that the participants hold about the issue being researched (Creswell, 2014). When little is known about a concept or a phenomenon because previous research is limited, then this type of approach seems practical. In addition, interpretive research is also practical when "… the subject has never been addressed with a certain sample or group of people…" (Creswell, 2014, p. 20).

The purpose of my research was to understand wilderness perceptions of MK users, by interviewing them. Finding the 'methodological appropriateness' and positioning research within a certain theoretical tradition (e.g., case study and phenomenology) is not always easy, and sometimes a researcher uses elements from more than one inquiry method when conducting the study. With that in mind and for the structure of this study, I used elements of phenomenology where the focus is on "…capturing and describing how people experience some phenomenon – how they perceive it, describe it, feel about it, judge it, remember it, make sense of it, and talk about it with others" (Patton, 2002, p. 104), and of case study and grounded theory where the analysis process includes coding and identifying themes in the data collected (Symon & Cassell, 2012). My research objectives were aimed at capturing the user's perception of the MK. I asked for their feelings about it, what made it so special, and what possibly had an impact on their wilderness experience while in there. In essence, I was

asking them to describe the core of their experience being in the MK. One implication of these inquiry traditions is the importance for the researcher to experience as directly as possible the phenomenon being researched, whether that is being done by participant observation or in-depth interviews. Such an experience can make it easier for the researcher to interpret the data collected (Creswell, 2013; Patton, 2002). My two-week guided horseback trip into the MK (discussed below) gave me the chance to experience the MK first hand and have the opportunity to talk to the other participants on that trip where they had the opportunity to share their experiences with me.

4.2.1 Study population.

The study population for my research included previous MK visitors. I also included, to a limited extent, people with wilderness values who had not visited the MK, in order to capture non-use values. However, the difficulties in accessing visitors and the limited information about them provided significant impediments to study and sampling methodologies. The MK spans an enormous area with limited access, as described in chapter 3. Although the Alaska Highway transects a portion of the MK access points, facilities and accommodations are widely dispersed and infrequently used.

4.2.2 Sampling methods and criteria.

When conducting a study with elements of phenomenology it is important that all participants in the sample have experienced the phenomenon that the study is focused on (Creswell, 2013). The sampling method to identify interview participants was a mix of snowball sampling and maximum variation sampling - both purposeful sampling techniques (Suri, 2011). These kind of sampling techniques are often used when accessing or identifying members of the population can be difficult for some reason (Curry & Nunez-Smith, 2014;

Symon & Cassell, 2012). Other researchers and MK Advisory Board members were my gatekeepers to identify the first interviewees and then I snowballed from there. At the end of each interview the interviewee was asked to identify another user, or users. Eligible interviewees, for the largest portions of the research, were previous MK visitors from a range of user groups, such as motorized users, hikers, hunters, horseback riders, and paddlers. Previous users were limited to those who had visited the MK in the past 5 years, in order that they could recall their experiences and provide in-depth information about their visit. The intention was also to interview non-direct users of the MK, who are wilderness users in general, as a comparison group. The non-direct users received a slightly different set of interview questions (see both sets of questions in Appendix I).

The sample size for interviews was framed from a maximum variation sampling perspective, where the aim is to sample in order to make sure "there is a good deal of variety in the resulting sample" (Bryman, 2012, p. 418). With this as the idea, my attempt was to interview participants from as wide a range of perspectives as possible. A purposeful sampling method is not used to generalize to a population (Bryman, 2012; Patton, 2002), and my intent was not to achieve representative results but rather to find the maximum variation so I could understand the possible variations in wilderness perception. Given these objectives, I anticipated completing 15-25 interviews, a common sample size when conducting a qualitative study with similar structure (Symon & Cassell, 2012). When using purposive sampling, the sample size can either be fixed (non-sequential sampling) or it can have an initial sample size which then evolves during the research process (sequential sampling; Bryman, 2012). In this study, the latter approach was used where I had an anticipated sample size in the beginning, which then evolved as I got further into my

research. Additionally, I was trying to achieve geographical variation among the interviewees (where they live), not just the variation in recreation they had been doing in the MK. About half way through my interviews I had a list of people who had been identified by other interviewees. I made a demographic description of the interviewees to date, and used this in conjunction with the profiles of those potential interviewees to select the final interviewees (see figure 7). In total, 24 individuals participated in 20 interviews (including 3 couples and 2 brothers in four sessions).

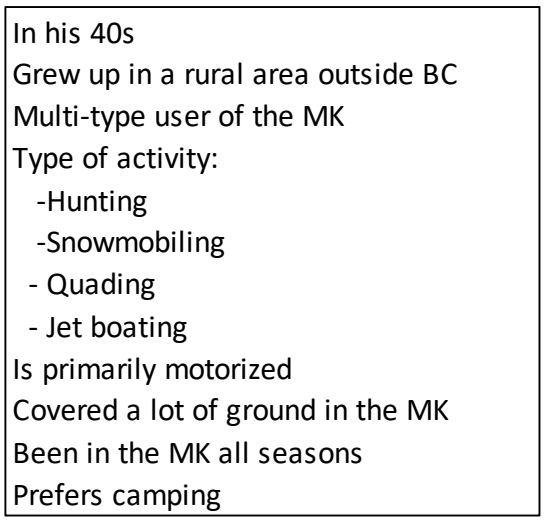

Figure 7. Example of an interviewee's demographic description.

4.2.3 Data saturation.

The goal was to interview as many types of users of the MK as I could in order to encompass maximum variation. It can be difficult knowing whether one has completed enough interviews to include the range of perspectives needed. Many follow a general principle associated with theoretical or data saturation wherein constant reviewing of the interview material suggests that saturation (or in this case maximum variation) is reached when no new information (or perspectives) are obtained (Tuckett, 2004). There is little formal guidance for when a qualitative researcher reaches data saturation (Guest, Bunce, & Johnson, 2006). By using purposive sampling, I used different criteria to narrow in on

interviewees. As mentioned above, I developed a demographic profile of each interviewee after the interview to get an overview of what information I had so far, and what kind of information (e.g., type of user) I might possibly need to collect. Before the last few interviewees were identified, I met with my supervisor where we examined the demographic profiles of the participants interviewed to date, and the list of potential interviewees. Considering the type of recreation and geographic location of the interviewees, we identified the last set of interviewees to be interviewed to ensure maximum variability and hopefully achieve data saturation.

4.3 Participatory Observation

Participatory observation is another way of data collection in qualitative research (Johnson & Turner, 2003) and can be used as a stand-alone research method or to help the researcher immerse themselves in the participants` experience. It can also be used as a triangulation technique. Consistent with this, I participated in a two-week horseback tour into the MK from June 18-July 2, 2017. The group consisted of six participants (including me), a guide and two wranglers. Four out of six participants were visiting the MK for their first time (including me). In addition to helping me understand the nature of experiencing the MK wilderness, I also intended to collect information from the participants about their wilderness perspectives throughout the journey. On the first day, they were all informed about my research and the data collection methods during the tour, and consent was obtained. I did not formally interview fellow participants, but instead started an informal conversation either one-on-one or in a group which often took place in camp at the end of the day. I also tried to listen for their reactions when we were on the trail. At the end of the day I noted in my journal what we had talked about and their reactions on the trail. I also took notes in my

reflective journal, where I noted my reactions and feelings while experiencing the MK wilderness. The reason for not conducting formal interviews was that the group was up early every day and arrived into next camp late in the afternoon and I did not want to take up their time and intrude too much on the wilderness experience. However, one of the participants was later interviewed formally through Skype. The information collected on this trip was coded in a similar way as the transcribed interviews but identified as participatory observation. I also took notes in my reflective journal after each interview and throughout the research process, where I used the information if something needed to be clarified, such as quotes from the interviewees, or when I needed to get back to the data to see if there was something there to support the themes.

The participatory observation was also useful to ground me with a Canadian wilderness experience and specifically help me in understanding the MK wilderness. With my previous backcountry experience from Iceland where the geography, wildlife, and vegetation are significantly different, the horseback trip changed my conception of wilderness.

4.4 Interviews

Within the overall framework of the research purpose and questions, the research intent for the interviews was to talk to a wide variety of past MK visitors to understand the widest spectrum of wilderness perceptions. More precisely, I wanted to know about the nature of their MK wilderness experience and get them to explain what and how various wilderness attributes affect their experience (Glaspell et al., 2003). I wanted them to identify attributes of wilderness that they find important to them and see if there were any patterns in attribute importance. The intent with the interviews was to focus on depth and not aim for

generalizability “since the intent of this form of inquiry is not to generalize findings to individuals, sites, or places outside of those under study”(Creswell, 2014, p. 203).

4.4.1 Contacting the interviewees.

To get in contact with the interviewees, I either sent an email followed up with a phone call (majority of the interviewees), or I used Facebook when an email address or phone number was not known (see Appendix II). For the first few interviews, my supervisor contacted the interviewees and introduced my research to them. In a few other cases I was introduced to the interviewee by either my committee members or a MK Advisory Board member. In those cases, it was not as challenging to get in contact with the interviewee. Everyone I contacted and asked to participate in my research accepted.

4.4.2 Informed consent.

Before each interview started, the interviewee was provided with an information letter and a consent form with the project title and contact information, as well as general instructions to the interviewee, such as release form, approximate length of interview, purpose of research, and methods of disseminating results (see Appendix III). In terms of the interview, I used a semi-structured format, being conscious of question wording and sequencing to help make the participant more comfortable in the interview (Berry, 1999).

4.4.3 Conducting the interviews.

The intention was to conduct the interviews in person, as this offers the opportunity for the researcher to observe and interpret non-verbal communication, for instance body language. In addition, by conducting the interviews at the participant’s chosen location, it increases the participant’s comfort and allows some level of confidentiality (Bryman, 2012). Out of 20 interviews, 15 were conducted in person, and five through Skype. When the

interviews were conducted in person, I used hard copy printouts of photos and maps to help elicit responses to my questions (see section 4.5 below). In four of the face-to-face interviews I interviewed two people together, as previously mentioned. All interviews but one were recorded with consent from the interviewee; one interviewee did not want to be recorded and notes were taken in that interview. The length of the interviews varied from 25 minutes up to 80 minutes, giving me just over 15 hours of data. The interviews were conducted at places chosen by the interviewees. Six interviews were conducted at the interviewee's homes, three at their workplaces, two at UNBC, two at a restaurant/coffee house, and two at a community house. I went twice on a road trip to conduct the interviews, in September and October 2017, when I drove up to Fort St. John and to Fort Nelson and the surrounding area.

4.4.4 Coding and analysis.

The data analysis process is thematic in nature when using elements from phenomenology and case study, and is about identifying meaning units, or themes, that narrow into what and how participants have experienced a phenomenon (Creswell, 2013; Guest, MacQueen, & Namey, 2012; Patton, 2002). All recorded interviews were transcribed verbatim. All interviewees were given a pseudonym to help ensure anonymity. The analysis process in my study began with a close examination of the transcripts to obtain an overall feeling for them. I made a codebook, at first with structured codes, which later developed as more transcripts were coded and emergent codes were identified. To verify my interpretation of the data, my supervisor and I did a coding check where we separately coded the first transcript and then compared to see if we did things in a similar way. I made some changes to the codebook before I continued with the rest of the transcripts. The coding check was part of peer reviewing where the researcher gets a peer (experienced with qualitative analysis) to

review the coding, interpretations, and findings to see if the peer´s findings are similar to the researcher or if there are some differences, which they then need to discuss and clarify (Creswell, 2013). Keywords, significant phrases or sentences were then coded and analyzed using thematic analysis with a mix of 'a priori' and emergent coding. The first round of coding was 'a priori' coding, and was a structural coding based on, or related to, the research objectives, in contrast to the second round of emergent coding that was data driven. I used Nvivo11 (Nvivo, 2018) to help organize the data and conduct analysis of the results.

When using thematic analysis in analysing data, the researcher has to think carefully about reliability, more than if using numerical analyses, as the researcher is more involved in interpreting the data and applying codes to chunks of text (Guest et al., 2012). Thematic analysis is a six phase process (Braun & Clarke, 2006).

- Familiarising yourself with the data.
- Generating initial codes.
- Searching for themes.
- Reviewing themes.
- Defining and naming themes.
- Producing the report.

In this research, I created a codebook as I was going through the analyzing process of the interviews. When coding was done, I started looking for themes by looking at the codes and reviewing the transcripts. After reviewing the themes I had come up with, I ended with thirteen themes. Under most themes are subthemes to help identify what each theme is about.

Later on in the analysis process, all interviewees were given a wilderness purism score based on my own assessment of each interviewee, after having reread all the

transcripts. I assembled a list of 18 attributes (see table 3) where I assigned, using their interview transcripts as a guide, each interviewee a score from 1-5 on a Likert scale, where 1

Table 3.
List of attributes used to give interviewees a wilderness purism score.

1	Evidence of resource development[a]
2	Commercial recreation
3	Hunting
4	Being able to camp whereever you want
5	Motorized access[a]
6	Large size
7	Remoteness
8	Solitude
9	Free from evidence of human impact
10	Maintained trails[a]
11	Signs of previous camping[a]
12	Naturalness/wildness of the area
13	Encountering other type of users[a]
14	Opportunities for cultural/historic preservation
15	You can travel for hours without meeting anyone
16	Evidence of wildlife
17	Limited access/difficult to access
18	A place with opportunity for unrestrained or unconfined recreation

[a] *Reverse scored*

meant 'strongly detract from the wilderness experience', and 5 'strongly adds to it', with 3 being 'neutral'. Those 18 attributes where identified from a list of attributes used in previous research (see section 2.4.1) and put together based on my assumption on what would be suitable for the MK. This resulted in a total score for each interviewee which positioned them on the Wilderness Purism Scale as a nonpurist, neutralist, moderate purist or a strong purist.

4.5 Using Photos to Prompt Interviewees' Memory

Based on previous research (see section 2.4.2) where photo elicitation was used both with in-depth interviews and questionnaires, I used photos in my interviews, except with the

interviews conducted through Skype. Incorporating photos in interviews often helps stimulate the interviewees to bring back memories of people or situations (Bryman, 2012), and in this research it often helped inform the discussion on wilderness perceptions. For instance, it brought up some wilderness perceptions that the interviewees saw on the photos. The photos were laid on the table and the interviewee had a chance to have a look at them before and during the interview. The photos used were from my trip in the MK, from the MK website, and from my supervisor. All photos but one were from within the MK and were hard copy printouts of decent quality. Not only did I use photos, but I also had a couple of maps of the area, one made using ArcGIS software (which was in an 11x17" size) and one from the web (see Appendix IV).

4.6 Rigour

In a qualitative study, the researcher is the instrument and therefore needs to give some background information, such as former experience, training or perspective brought to the research. There is detailed background information in section 5.2.3 for the reader to see what perspective and experience I bring to this research. Transparency of process is critical for the study to be convincing. Therefore, a detailed documentation and description of procedures gives others an opportunity to make thorough assessments regarding the credibility of the research findings (Guest et al., 2012; Patton, 2002). I kept a journal where I reflected on and recorded my interpretations and noted any preconceived perceptions I might hold. I also kept field notes with interview descriptives such as date and time, location, length of the interview, type of setting and my thoughts about the interviewee, both before and after the interview. Keeping the journal and the field notes was to enrich the data collection as I could reflect on my thoughts and feelings. The purpose in participating in a horseback tour

into the MK was twofold: 1) to get to know the MK first hand and learn about the area (stories, names of places, etc.), both from the guide and my fellow participants; and 2) to have the opportunity to talk to the participants about their experience of the MK, both on that trip and previous ones (if applicable). Additionally, experiencing the MK beforehand enabled me to better understand the interviewees' experiences of the area.

I sought transferability by providing thick descriptions of my findings with descriptive details of the MK to make it possible for other researchers to form judgements if the findings are transferable to another phenomenon (Bryman, 2012).

Dependability and confirmability were sought through peer review of coding and analysis to ensure my interpretation of the data, and to make sure all conclusions were firmly grounded in the data, although each researcher may interpret the data differently. Dependability and confirmability were also sought by ensuring that complete records of all phases of the research process were kept.

4.7 Ethical Considerations

This study received approval from the UNBC Research Ethics Board on May 8, 2017 (#E2017.0412.026.00).

4.8 Summary

Data collection consisted of participatory observation where I took a two-week horseback tour into the MK, and in-depth semi-structured interviews, where twenty interviews representing a total of 24 interviewees were conducted. A journal was kept throughout the research process where any preconceived perceptions were recorded. I also kept field notes where I recorded information related to the interviews and informal talks I had with participants on the horseback tour. All interviews but one were recorded and

transcribed verbatim and analysed using thematic analysis. The analytical approach employed elements from phenomenology as well as from case study analysis and grounded theory to help identify various dimensions in the data. The results from the analysis are interpreted and discussed in the following chapter.

5.0 Findings

To contextualize my findings, I briefly discuss the interviewees and then provide an in-depth description of four of them designed to illustrate the range of types of users. To contextualize any preconceptions I might bring to this study, I also review my background and former wilderness experience. The results from the interviews which were analyzed for structural themes guided by the research objectives, the interview questions, as well as emergent themes are presented thematically and illustrated using quotes from interviewees (thick description). Interviewees are referred to by pseudonyms and have been edited only for brevity and clarity.

Results are organized by the research objectives within which I identified emergent themes. To set the context for the themes, I framed them with concepts from previous research. Underlined text serves as a header for subthemes under the main themes. Quotes (in italics) are used to provide a thick description and as support for the themes. Quotes are unedited except where punctuation is added to improve readability.

5.1 The Users of the Muskwa-Kechika Management Area

When users of the MK are mentioned in this research, the meaning is people who recreate in the area, either by themselves or on guided trips. Where possible they were classified into type of users considering their main/favorite type of activity. Two of the interviewees were classified as non-direct users of the MK, and are referred to also when discussing the users of the MK here. Those two interviewees were chosen for the purpose of comparing wilderness perceptions between those who recreate in the MK and those who do not.

5.1.1 The interviewees.

The total number of interviewees was 24 in 20 interviews, seven women and 17 men. Out of 24 interviewees, nine had homes in and around Fort Nelson, six in and around Fort St. John, seven in and around Prince George, and two interviewees had homes outside BC, but within Canada. Of these 24 interviewees, five have origins outside Canada (USA and Europe) and immigrated to Canada at some point in their lives. Table 4 lists interviewees pseudonyms, age and gender as well as residence when the interview was conducted.

Table 4.
Pseudonyms, age, gender, and residence of the interviewees.

Name	Age	Gender	Area	Name	Age	Gender	Area
Annie	58	F	FN	James	66	M	PG
Andrew	67	M	FSJ	Diane	54	F	FN
Bob	66	M	FN	Kramer	47	M	FSJ
Barbara	61	F	FN	Lewis	51	M	PG
Chris	49	M	FN	Gwen	52	F	PG
Dave	67	M	FSJ	Morgan	66	M	FN
Ethan	46	M	FSJ	Nick	23	M	YT
Fred	53	M	QC	Emily	25	F	PG
Greg	58	M	FN	Oscar	43	M	FN
Harry	68	M	FN	Paul	47	M	FSJ
Ian	29	M	FSJ	Farrah	68	F	PG
Charlotte	63	F	PG	Steve	68	M	PG
Allan[a]	70	M	Vi				
Mean age	*55*						

Note. FN=Fort Nelson area (9) FSJ=Fort St. John (6) QC=Quebec (1)
PG=Prince George (7) YT=Yukon (1) Vi=Victoria (1)

[a] Participated in the two-week horseback tour, was not formally interviewed.

The sample represented a wide range of recreational activities within the MK, although two interviewees were classified as non-direct users of the MK[1]. Most interviewees

[1] The non-direct users were included to contextualize the users' results recognizing that many people hold wilderness values for the MK even if they have never visited the area.

have been into the MK multiple times and both in summer and winter, participating in a range of activities, such as hiking, horsebacking, hunting, floating the rivers, fly-in fishing, and variety of motorized activities.

The MK offers a wide range of recreation opportunities and people go there all year round, and some of the interviewees have been there all seasons. I also interviewed people who have driven the highway through the area, and others who have used different types of transportation, either in or out of the area, such as aircrafts and jet boats. None of them, however, have gone trophy hunting. Table 5 presents an overview of all the interviewees, including their user type, activity type(s), their classification, and their transportation methods used.

Interviewees are classified into motorized users and non-motorized users, and into those who are classified as both. Users with motorized recreation as their main activity as well as those who used a motorized transportation method (other than a plane) into the MK are classified as motorized. Non-motorized users may have used a plane or a jet boat as a transportation method because their destination to start the non-motorized activity required motorized transportation to get there. Those classified as both have done motorized and non-motorized activity in the MK. One interviewee (James) had never been to the MK (classified as n/a in the table) but held values for the MK. One additional interviewee (Nick -- classified as n/a in the table) had driven the Alaska Highway through the MK but were unaware that he was in the MK, and thus I identified them both as non-direct users.

Table 5.

Overview of the interviewees by type of activity in the Muskwa-Kechika Management Area, user type classification and transportation methods used.

Pseudonym	Type of user	Activity	M, nM, Both	Transportion method	# of visits	Camping/cabin
Annie	Multi-type	Hike, float	nM	Foot, plane (float)	Several	Camping
Andrew	Single type	Hike. Work related trips (a helicopter pilot)	Both	Helicopter	Multiple	Both
Bob	Multi-type	Hunt, float, horseback, quad	Both	Foot, ATV, plane (float), horse	Multiple	Camping
Barbara	Multi-type	Hike, float, horseback	nM	Foot, plane (float), horse	Several	Camping
Charlotte	Highway	Hike (outside MK)	M	n/a	Twice	n/a
Chris	Multi-type	Snowmobile, jet boat, quad	M	Snowmobile, ATV, jet boat	Multiple	Both
Dave	Multi-type	Hunt, hike, a pilot (often flies in)	Both	Plane (a pilot), jet boat, snowmobile, horse	Multiple	Both
Diane	Multi-type	Hike, float, quad	Both	Plane (float), foot, ATV	Several	Camping
Emily	Multi-type	Hike, horseback	nM	Plane	Once	Camping
Ethan	Multi-type	Hunt, horseback	nM	Plane (a pilot)	Multiple	Camping
Farrah	Single type	Hike	nM	Foot	Few	Cabin
Fred	Single type	Horseback	nM	Horse	Once	Camping
Greg	Multi-type	Hunt, horseback, quad	Both	Horse, ATV	Multiple	Camping
Gwen	Single type	Float	nM	Plane	Few	Camping
Harry	Multi-type	Hunt, quad, jet boat	M	ATV, jet boat, helicopter (work related)	Multiple	Both
Ian	Single type	Hunt	nM	Foot, helicopter (work related)	Several	Camping
James	Non-user	Hike	n/a	n/a	Never	n/a
Kramer	Multi-type	Hunt, snowmobile, quad	Both	Snowmobile, ATV, horse	Multiple	Both
Lewis	Single type	Float	nM	Plane	Several	Camping
Morgan	Multi-type	Float, hike, quad	Both	Plane, ATV	Multiple	Camping
Nick	Non-user	Hike, ski	n/a	n/a	Never	n/a
Oscar	Multi-type	Hunt, snowmobile, quad, jet boat	M	Snowmobile, ATV, jet boat	Several	Camping
Paul	Multi-type	Quad, hunt, snowmobile, float, horseback, fly-in fishing	M	ATV, snowmobile, horse, plane	Multiple	Camping
Steve	Single type	Hike	nM	Foot	Once	Cabin
Allan[a]	Single type	Horseback	nM	Horse	Multiple	Camping

Note. nM=Non-motorized M=Motorized. Plane (float)= Fly in to start a float or fly out after doing a float. # of visits: Few= <5 Several= 5-10 Multiple= >10
M=5 nM=11 Both=7

[a] Participated in the two-week horseback tour, was not formally interviewed.

5.1.2 In-depth profile examples of interviewees.

To ground the reader and characterize more completely the MK experience, I start by providing an in-depth profile of select interviewees. These four interviewees were chosen as examples because they represent a wide variety of wilderness users of the MK in type of activity, type of stay, and time of year. Two of them are multi-type users that do both motorized and non-motorized activities, where one prefers motorized and the other one does not. The other two have only done one type of activity; one has done hiking and the other visited the MK for his first time in the summer of 2017 when he took a horseback tour. The four of them represent almost all the geographic locations of the interviewees in this study.

Diane is a multi-type user of the MK and lives in close proximity to the MK in the Fort Nelson area, which gives her the opportunity to go into the MK without having to travel long distances or spend a lot of money to get there. She knows the front-country part of the area fairly well and uses every opportunity to recreate (daytrips) in the MK. When she does daytrips, she most often uses a quad and travels the designated routes provided in the northeastern part of the area. Sometimes she does day floats on the rivers. Diane has hiked the Wokkpash trail twice, a several day trip, where she camped on the way. She did both trips with family and friends. She has been on longer trips, up to 12 days, when she has floated the rivers in the MK. She usually travels with the same group of about 10-14 people on those floating trips. She has covered quite a bit of the north and northeastern part of MK on those floating trips. Most often the group needs to be flown in to the starting point or flown out at the end of the trip. The biggest motivation for Diane to visit the MK is to get away from the noise of the city or town and experience the peace and quiet she can get in the MK.

Fred visited the MK for the first time in the summer of 2017, when he took a two-week guided horseback tour. Fred is not an experienced horseback rider, but he knows horses more through his job. There were moments on that trip where his expertise was appreciated, which added to his experience. In the MK horseback trips can include a lot of hiking, both where you are leading the horse up or down a steep hill and also when there is a day off. Fred used every opportunity to go hiking and also did some fishing, which he absolutely loved. Fred had been thinking of a horseback trip into the MK for two years and decided to go in 2017. Besides wanting to experience the MK, he also wanted to strengthen the relationship with his kids, a 23 year old son and a 27 year old daughter, who went on that trip with him; both were also in the MK for the first time. His daughter is an experienced horseback rider, and his son has quite a bit of experience. Fred resides outside BC, where he has taken hiking trips. He usually goes hiking (overnight) with his dog and one other friend. According to Fred, this horseback trip gave him more confidence to spend time in the wilderness, which will benefit him in his future camping trips.

Farrah is classified as a hiker, as she has only done hiking in the MK; she is one of few who has only done one type of activity. She is an experienced hiker and has been on hiking trips outside Canada. Farrah has stayed in one of the lodges in the northeastern part of the MK and taken day trips from there with a few of her friends. She also stayed for a few nights in a cabin at Beattie Lake with her friends, where she again did day trips out from the cabin. The driving force for Farrah to visit the MK is the diversity of wildlife. She likes to see wildlife but more importantly to know that it is doing well in its natural habitat. Even though Farrah has not covered a lot of ground in the MK on her hiking trips, she is a retired scientist, and through her job she has read a lot about the area and gained much knowledge

about it. She dreams about going hunting one time in the MK with her husband. Farrah is aware of potential danger in the MK, such as encountering the wildlife, so she is usually the rifle bearer in her hiking group.

Kramer has been into the MK in all seasons and done various forms of recreation. He has been on a snowmobile, a quad, and horses. He likes snowmobiling the most, as he can explore and cover more ground. Exploring is what he really likes to do when in the MK. He lives in Fort St. John, so he usually does not have to travel long distances with his snowmobile or quad to get into the area. When he goes hunting in the fall he goes in on horseback. His hunting spots are in the northeastern part of the MK, which means he has to travel with his horses up north. When on quads in the summer, Kramer and his friends often stay in a cabin at Redfern Lake and travel from there which often means they go hiking (day trips). He uses that same cabin in the wintertime, and they take snowmobile day trips from there. He tries to travel with not too big of a group when quading or snowmobiling, as a smaller group moves better, he said. One of the highlights for Kramer when in the MK, is getting to see the northern lights; he said that experience is second to none. When hunting in the fall, he travels on horse, and he and his hunting partners know of places where few hunters go, and which are difficult to get to, except by horse. According to Kramer, he gets a different kind of experience when on horses. He can look at wildlife up close compared to when he is motorized. Also, he is in a smaller group, which makes it easier to move and/or stop when there is something special to look at.

5.1.3 Where do I stand?

My former experience in the wilderness and my opinion on what it is probably differs from most, if not all, of the interviewees. I am from Iceland and even though about 34% of

Iceland's land cover is designated as wilderness (Olafsdottir & Runnström, 2011), it does not make me an experienced wilderness explorer. In my opinion, there are two things that are distinctive between wilderness areas in Iceland and in Canada. In Iceland, I am at the top of the food chain, so to speak, whether I am in a designated wilderness area or not. The variety in wildlife in those designated wilderness areas is limited to reindeer and smaller mammals like foxes, compared to Canada where the variety in wildlife is greater, and sometimes more dangerous. The second thing is the vegetation. Most of the designated wilderness in Iceland is in the Icelandic highlands where there are no trees, and it is largely covered by glaciers. My experience comes first and foremost from being a guide in my hometown where I led tourists on hiking tours and on boat tours around the island. Although I do not have to worry about being eaten, I do have to be prepared for shifting weather conditions, which I also have to think of when going into the Canadian backcountry. I have taken two snowmobile day trips in Iceland, which gave me a chance to visit areas which otherwise would have taken days to hike into, and I have done quite a bit of sheep herding in the mountains, which means a lot of hiking and a chance to go to and see places I usually do not plan to visit.

My perspective of wilderness before moving to Canada was that wilderness is easily accessible, especially in the winter time when a big portion of the wilderness is accessible on a snowmobile and 4x4 vehicles. Sudden weather changes, for example, is something one has to be prepared for. I perceived that there is not a great chance of encountering wildlife in such places, and if so, one is not in any danger. There are more chances that you encounter other people there. Although the weather can be a factor when it comes to scenery in the wilderness in Iceland, the lack of trees gives one the chance of unobstructed scenery most of the time; therefore there are more chances of seeing other people or man-made structures. I

do not consider any places on my Icelandic island as wilderness, as one is almost always in close proximity to the town (less than a kilometer), even though you can be in a place where one sees no houses, only ocean.

When I had the opportunity to go on a two-week horseback tour into the MK, I thought that it would enhance my wilderness experience and it would be a great opportunity to get to know the MK from within, as opposed to just reading about it. I thought that the trip would be of great help before actually conducting the bulk of the interviews (figure 8). The group I was travelling with was a mix of people who have visited the MK up to 12 times

In his 40s
Grew up in Iceland
Multi-type user of the MK
Type of activity:
  -Horseback (once)
  -Highway user (3 trips)
Both motorized and non-motorized
Camping and lodges

Figure 8. Overview of researcher's experience (mine) in the Muskwa-Kechika Management Area.

before and people who were there for their first time. Even though I was with a group, I sometimes felt like I was on my own, as everybody is reflecting on the scenery or the wildlife. Listening to "Wow!" and "Oh my God!" from the group again and again, even from those who were there on their fifteenth trip, gave me a sense of what the MK has to offer for its users.

One can read about wilderness areas in other countries and try to get a feeling for them by looking at pictures and compare to one's own experience or perspective of other wilderness areas. This trip into the MK opened my eyes to how relatively inaccessible the area is, especially the backcountry, and what a big role that can play when it comes to users' perceptions of the area. Being in there and not seeing people other than my group for two

weeks made me realize that I was in a very remote area where the unexpected could happen. Knowing that one is hours, if not days, from the nearest help made me aware of the surroundings that I was in. It was easy to get lost if I wandered away from my group, I had to be aware of the wildlife, and as we traveled through the area my confidence of being in the wilderness slowly built. Encountering wildlife in its natural habitat that you have never before seen with you own eyes, makes me feel special and lucky. Experiencing the wilderness firsthand changed me in a way that I have a great deal more respect for it and I better understand the need for preserving such areas in a way that suits both different types of users and the wildlife.

5.2 What is Wilderness to MK Users and What Defines Their Wilderness Perception?

Previous research has demonstrated that it is difficult to come up with a single universal definition of wilderness. Rather it is important to understand how the visitors of wilderness areas perceive it, for example its size, the human influences, how remote the area is, the possibility to experience solitude, and the distance from human structures (Aplet et al., 2000; McDonald et al., 2009; Olafsdottir & Runnström, 2011).

The first two research objectives address the wilderness definition (examine how users define wilderness in the MK) and the wilderness attributes by which it is defined (examine what defines the wilderness perception of MK users). These two objectives are addressed in an integrated manner. Six themes (subthemes are underlined) were identified addressing these two topics (see figure 9).

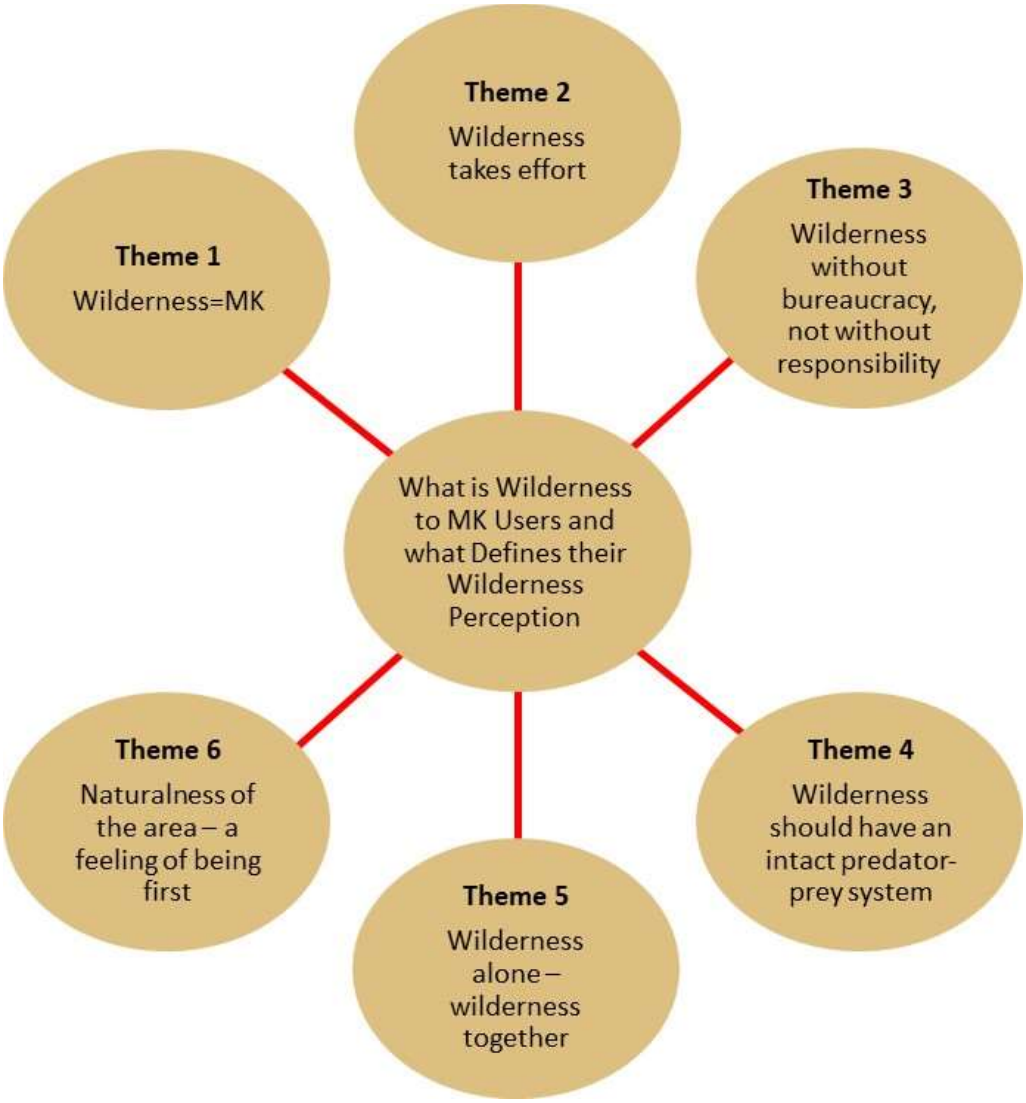

Figure 9. Themes identified by addressing Muskwa-Kechika Management Area (MK) users' wilderness definition and perceptions of wilderness.

5.2.1 Theme 1: Wilderness equals the MK.

Having such a big area to visit with an abundance of wildlife, shifting topography, and variety in recreation opportunities made some of the interviewees feel lucky to have a chance to visit the MK. Chris and Annie said they were very fortunate to be able to visit the MK and spend time there. Chris has been trying to make a visit to the MK a family tradition:

> *Like you can get your family, you can get yourself to somewhere where nobody else has been. Maybe not currently, everybody has pretty much not a spot that has been*

> *touched by a man's footprint, but to go to places where not many people go, makes you feel, I don't know, special, lucky, to get to access this part of the world. With people that won't never see anything like that in their entire life, I believe (Chris).*

Oscar told me that *"…if there was a picture of wilderness in my dictionary it would be the MK. Yeah."* Annie agreed saying the *"MK is prime wilderness."* And she continued:

> *There is some really amazing country back there. And there is a lot of country back there that most people will never get a chance to see. And I´m very fortunate to have been able to see some of it (Annie).*

One of the reasons a majority of the interviewees reported for going into the MK was to get away from urbanization, civilization, lights and noise, and to escape into a world where one can forget about things important to everyday life:

> *[I]t's beautiful. To get out there and you can forget that rest of the world exist, It's beautiful…. It's nice just to go on a river boat trip [floating] and forget about all the headaches and things that are going on in everyday life (Barbara.)*

The opportunity to escape from everyday life and into the MK gave some of the interviewees the chance to leave their worries at home as they seem to be free from the clock when in the wilderness. While out there the only schedule to follow was the rising and setting of the sun. Time spent in the wilderness was thought to be restorative, like recharging the mind and soul in there. When Farrah returns from the MK, she experiences this and is ready to get back into everyday life. "*Yeah, kind of like recharge your batteries… I guess that´s what I meant by like feeding my soul, it´s like go out there for a while and definitely I feel that my attitude´s been adjusted in a positive way."*

On the horseback trip I went on in the MK, we once had a day off, and four of us decided to take a hike up a nearby mountain. It was a few hours hike in beautiful weather. On the top of the mountain we had a 360 degree view over the Northern Rockies, seeing where we had come from the day before and where we were heading the next day. Three of us were in the MK for our first time, Fred, Nate, and I. Allan was there for his fifteenth time however,

and he said to me when we sat down to have our lunch: *"You know what? I've been dreaming about this day ever since I was a teenager working as a park ranger in Jasper in the 60s watching all the people hike the mountains there."* He is 70 years old and never had a chance on his previous trips to do such a hike. He pushed himself hard getting to the top of that mountain with the reward of the view that we got. Fred said to us that pushing yourself to get up to a mountain and get that view *"is what you are living for, to experience what we are seeing now."*

The MK should be experienced with people who share the same interest.

Even though for a lot of the interviewees the motivation to visit the MK is to get away from the city lights and the noise, and away from people, it does not mean that they want to be out there all alone. Only a few of the most experienced interviewees have gone solo into the MK, whereas the majority of them are not that confident being in there alone. More commonly, they really like to experience the MK with friends or family, as it can be difficult making others understand what you experienced.

> *Well it it's hard to communicate what the experience is travelling to the MK just by talking to somebody, right? They need to actually see it for themselves. I mean, if you're a good photographer you can explain it a little better, but you really have to experience it yourself to really appreciate it, so (Paul).*

Ethan, for example, has been going into the MK ever since he was a young boy, and he and his father have always hunted together. Now Ethan has started to take his kids with him on trips into the MK (not necessarily hunting). Going into the MK with people that share the interest of the area seems to be important, as Dave points out:

> *I think most people that do like what I want to do, they want to get away from the city lights. …[T]hey want to be out, not necessarily alone… But more go out with people that want that same interest. Go out there and do things, like skidoo parties with half a dozen people. We all have the same idea and challenges, you know, you get stuck,*

> *you get to go to different places. It's challenging. Still, like some people like golfing. We like to do this! (Dave).*

Fred went on a two-week horseback tour into the MK and there were people on the trip he had never met before. Being with a group of people in the backcountry helps make connections and bring people closer together, and as Fred said: *"Sitting around and talking to people that we got to know very closely just from surviving together."*

Wilderness beyond the cell phone.

Part of escaping from the civilization when in the MK is the total disconnection from the outside world that some of the interviewees specifically sought. It allows them to have a true wilderness experience.

> *Well nobody can contact you, like it doesn't matter what's happening in the outside world. I mean we were in there hunting one year when the World Trade Center got hit and we didn't know. I mean it's just you're oblivious to the problems of the world, basically, you're in your own bubble and it's just, it's just a comforting feeling sometimes (Kramer).*

Like Kramer, Ian hunts in the MK, and he said *"…it is the need to get away and kind of disconnect from the rest of the world for a little bit. You know, you don´t have a cell phone back there… it is kind of therapeutic, I think, in our way."* Although a total disconnection in the MK can give the feeling of being in one's own world where everyday life is left at home and an environment full of adventures takes over, it can also affect the mind as an increased importance of self-sufficiency and understanding of the risks that are being taken. A few of the interviewees talked about the added risk when they get into the backcountry part of the MK, danger encountering wildlife, and the risk of getting injured, with assistance hours away. Paul is an experienced MK user who has been there in all seasons and he is aware of the danger there:

> *So that's always in the back of my head, what am I going to do for four or five days if something happens, while I'm waiting for someone to come. I'm pretty sure that's how long it's going to take for someone to get to me (Paul).*

Emily prefers camping over using cabins when in the wilderness, as she feels more connected to nature being in a tent and can feel the weather outside. Sleeping in a tent also comes with its disadvantages, as she mentioned when talking about her trip into the MK:

> *There is always like a very thin veil that separates you from everything else. Yeah, including the things that can harm you, you know. Yeah, definitely, like when we were up there we had horses, like we camped right next to a horse trail and sometimes you could hear them in the middle of the night walking up and down the trails. And there were moments where I like "what is that" like I feel something like "who is out there", there is something right near my tent (Emily).*

For Diane, it is important to get into the wilderness and experience the peace and quiet *"…and you don't have noise, loud noise, a lot of noise, you know, you have just the wilderness noise, which is much more relaxing."* With wilderness noise, she was referring to: "*Even just the rivers flowing, leaves of the trees, the birds chirping, that kind of noise. As opposed to traffic on the road noise."* Charlotte likes to get away from the crowd and into areas where she can experience peace and quiet, and as an avid birdwatcher it gives her great pleasure to sit by a lake looking at birds and wildlife and enjoying the scenery.

The interviewees also talked about the importance of feeling disconnected, or unplugged in a wilderness area, for instance where you have zero cell service. For some of them this is the line between what is wilderness and what is not, as James points out: *"What is wilderness? That's really not wilderness when you can have a bar on your cell phone."* Although communication to the outside world can be important when in the wilderness, in case of emergency, for example, devices other than cell phones can be used. Being in an area where one has cell service does not allow for the disconnection that some of the interviewees are looking for.

After heading north about an hour from his home in the Fort Nelson area (not inside the MK), Oscar considers that he is in the wilderness when he feels he is away from everybody and with zero cell service. This is also true for Dave, a pilot living in Fort St. John, who thinks wilderness can be found about 10 miles out of Fort St. John "*in the right spot.*" The best wilderness experience for Dave though, is where he can be in a place, either alone or with one or two of his friends, and there is no one around for a 50 miles radius. As a pilot, he can choose those areas (usually within the MK) where he can get that experience, as he has covered a lot of ground in the MK and knows it very well.

5.2.2 Theme 2: Wilderness takes effort.

How accessible the wilderness should be was discussed in several of the interviews, such as in terms of trails, motorized versus non-motorized, and regulations. For some of the interviewees it matters to have the freedom to travel through wilderness areas without too much restriction on where they can travel and what they can do. They want wilderness users to have the responsibility of treating the wilderness with respect. To some of them, the motivation of visiting and staying in the wilderness is important; they do not want the access to be too easy.

Wilderness cannot be too accessible, and people have to be motivated enough to go there and to spend time there, and they have to be prepared for the unexpected. Ethan talked about the fact that wilderness should be:

> *accessible to people who are motivated to actually want to be there. I don't want it so everybody can get there easily. There needs to be a certain amount of effort and planning put into it… I mean if you can drive your car there, then I don't see that, that's being a wilderness experience, right? If you have to hike, if you have to find the trail, if you have to spend time planning… and take actual effort to get there then I think that's, that's important (Ethan).*

The amount of effort that is put into the planning, preparation, and getting out there, can have an impact on the perception of wilderness.

Good planning and preparation are important before heading into the MK, especially when heading into remote areas where it can take days to get help if there is an emergency. Having to put effort getting into the MK and survive out there, whether that means setting up a plan for the trip, finding out what gear to bring, or overcoming challenges while recreating seemed to give some of the interviewees a greater wilderness experience (whether that is perceiving solitude or something else) than by employing more convenient transportation. The two types of transportation mentioned where one has to "earn" their way into the wilderness are hiking and horseback. Being prepared for the unexpected is important, no matter the means of transport, as Andrew, who is a helicopter pilot mentioned: *"We are pretty well prepared for just about anything, you know. There is always the unexpected. We go there prepared. You can't just go. You have to be prepared."* Oscar goes into the MK with some expectations about what he can experience on each trip, but he always prepares for the worst. He knows from his own experience the trouble he can get into being in one of the remoter areas of the MK:

> *We did have a boating accident last fall on the way out of Tuchodi. I ended up cutting my leg open. Just the two of us. Yeah. You have to prepare for those things… [But] we got out. We managed to get the boat back into the water. And moved on, but we're on one side of the river, obviously the wrong side of the river. But at the time we landed, another boat came up and by the time they came up, the sun was right in their eyes. So of course, they were just following the channel. And we're standing up and above the boat waving our arms to them, but they went right by us. They couldn't even see us… That was after the accident, yeah, because our boat was dark, we were over on the dark side of the river, the sun was right in their eyes. It was the only other boat that was on the river last fall at that time. And they couldn't even see us or hear us. Because the boat is so loud. We were stuck there, figuring out how to get the boat back into the water. I had a bleeding leg, yeah, but we managed to do it, got it back into the water, we got back to town and I got it stitched up. Life was good... You are in danger when you're in there. You are that far in, if our boat wasn't mobile, you*

> *know. If you don't carry your sat phone, there is no getting any messages out, that's for sure. That's where preparing comes in (Oscar).*

Both Ian and Annie mentioned the MK when they talked about planning and being prepared for a wilderness trip. That does not just mean having the right gear in the backpack, but also being informed about the area you are going into. "*If I can find out about where I'm going before I go there, I do like to do that. And there are some pretty good books on the rivers, and the sort of more common hikes, I guess" (Annie).* When in the mountains, sudden weather changes are something users have to be prepared for, and Ian goes prepared:

> *I often go in on these hunts later in the year, September or October, so I do often have expectations around poor weather. You know, that happens in the mountains quite a bit. So, I´ve been there in September and October in up to a foot of snow… So, I am always prepared for unpredictable weather, cold temperatures (Ian).*

5.2.3 Theme 3: Wilderness without bureaucracy, not without responsibility.

Offering not only freedom to travel but also from simple regulations such as designated campsites or use restrictions in wilderness areas is important to some of the interviewees. Farrah, for example, thinks about parks versus wilderness areas when talking about the ability to camp anywhere: *"You know, wilderness, the whole idea of wilderness is you´re a visitor, you´re respectful of it, it´s free of disturbance from other humans and regulations about where to camp, yeah."* When talking about the freedom to camp and keeping the regulations simple about campsites, the meaning is not necessarily the freedom to set up a campsite anywhere one likes, so it results in several campsites in a small area. Rather, if there is an existing campsite in a wilderness area which is in proper condition, one will appreciate and use it. Steve, Farrah's husband, mentioned this.

> *One of the things that I don´t mind, even in the wilderness setting, is finding a spot where other people have been there in times before, moved the big rocks out of the way where one would set up a tent… Not that you´re going to spend your entire time*

> *at that camp spot. But after you get off the plane you set up an overnight camp so with the idea you're going to have something to eat and then pack up in the morning and go somewhere… Rather than having a lot of places around the edge of a lake, having one spot, not through regulations, but just merely through the efforts of individuals that clean it out, move the rocks, make it a good camp spot… I find those, use and appreciate them (Steve).*

Part of the year, Bob and Barbara live in close proximity to the MK and both of them talked about the freedom to travel in wilderness areas. Barbara wants to be able to visit a wilderness area and see what is in there "*and not have to worry about filling out a ton of papers to go here or go on or have to report to somebody*." In their mind the authorities should trust wilderness users to treat the wilderness with respect, as Bob stated: *"What is wilderness? Wilderness without bureaucracy… but not without responsibility."*

5.2.4 Theme 4. Wilderness should have an intact predator-prey system.

Wildlife is an important aspect of wilderness to many of the interviewees; for many of them to see wildlife, and for others to know that it is there in the MK and is part of a functioning and healthy system, even if they do not see it. The MK is well known for its abundance of wildlife, and there are species there that get people to specifically visit the area, mostly to hunt. Species like the Stone's sheep are found only in British Columbia and Yukon, and despite a chance to see them along the Alaska Highway, they are mostly in the remote areas of the MK. The Stone's sheep is what drives Ian and many other hunters to go into the MK as "*the sheep is the kind of iconic species in the MK, and that is the case for a lot of hunters who go up there, from all over the world that go to the MK, to pursue Stone's sheep."* And Ian continued to talk about the wildlife, and he mentioned the predator-prey system that seems to thrive so well in the MK:

> *To find that many different species in abundance in a such a…. it is really a true predator-prey dynamic out there, ahm which is hard to find nowadays where you got so many predators like grizzly bears and wolves. And you got so many ungulates like*

> *elk and moose and caribou and sheep and goat, all kind of functioning together. That is pretty rare to find nowadays (Ian).*

There are probably not many wilderness areas that have the abundance and diversity of wildlife as the MK and which provide an opportunity for the users of the area to spot both predators and ungulates in there.

> *The amount of game. There's probably biggest, what most people mention, is the variety and the amount of wildlife that you can see. Ahm, you know, predators, ungulates. We have Stone's sheep, which is you know, not many places in the world have… But, the thing most people that I hear, what they mention, is the amount and variety of wildlife (Greg).*

The MK has been referred to as the 'Serengeti of the North' when discussing the wildlife values in the area, and a few of the interviewees mentioned this: *"But it is the wildlife that, and you hear that all the time, it's the Serengeti in the north, the wildlife values." (Harry).*

Being able to spot three or four different species on a trip there is quite unique.

> *And the thing that impress me was just the diversity of the animals, you know! We stand in at Mark and Jodie´s and we get to see sheep up on the top, we can see elk in the bottom, and we can see caribou in the middle, on the same mountain. Well, it is amazing (Farrah).*

On the last riding day on my horseback trip in the MK, the group spotted an elk, a caribou, several grizzly bears, and three wolves that the group scared away from their kill. At the end of the day, while having a conversation with two of the participants about what we experienced that day, they told me that seeing the wildlife so close as we did, made the experience very special. One of the participants said she had looked the wolves in the eyes before they ran away. For both of them, this day was the highlight of the whole trip.

Many of the interviewees that have been going into the MK for many years, have noticed changes in the wildlife population, as well as in wildlife behaviour. These changes are for certain species such as moose, elk, and caribou, and also for specific areas in the MK. They told stories about certain areas they used to visit, and they always managed to see the

wildlife, and maybe more importantly for some of them, to hear it. No matter if it was summer or winter or what type of transportation was used, it was almost guaranteed that they would see and/or hear the wildlife in there. That seems to have changed in recent years. Paul is one of those that have years of experience visiting the MK, both for hunting and recreating:

> *So, like the Tetsa area was a favoured spot of mine to go and just listen to the elk in the fall season bugling… So, I was actually looking forward to taking my kids there and to get them to experience that, right, and my youngest kid just turned six. Last five years where they opened up the cow season and it's all wide open there for anybody. You have like 14,000 hunters hitting that hard every year. And now you go up there and you want to get that beautiful awesome feeling of having elk bugle back at you in the morning and stuff like that where you can hear them. It's gone, right? (sounds kind of devastating) (Paul).*

Those who go in on their own to hunt (not using an outfitter's service) have the same story to tell. It is more time consuming to go hunting nowadays than it was some years ago. Many of them have gone into the same areas to hunt year after year, and it is becoming more difficult every year to get what they are looking for, for example, the elk. Chris goes into the MK both summer and winter and he has noticed this change:

> *As a young fella when I first started boating up there with people, and hunt, the elk were all over the river. It was never hard to hunt anything, you pull up on the beach, you walk a little way and you shoot an elk… And snowmobiling around in the winter time, like you do see quite a bit of elk in the winter, they're kind of like carpet on the mountain side, but they used to be more around in the summer time (Chris).*

Some areas of the MK that were previously secluded and relatively unknown have become more popular to visit in recent years, and according to Bob and Barbara, the increased knowledge or interest in those areas has affected the wildlife in there. They said there used to be a secret lake by Tetsa river that got opened up.

> *(Bob) It was a beautiful place (lowering his voice, emphasizing on the word beautiful), it was quite…*
> *(Barbara) And it used to be full of moose and elk and, now there is no wildlife in there.*

(Bob) Well, there is certainly a lot less, yeah.

And they have noticed the changes along the highway too.

> *(Barbara) Oh yeah. The amount of wildlife that used to be on the highway has…*
> *(Bob) Dwindled.*
> *(Barbara) … dwindled to just, like…*
> *(Bob) 10 percent.*
> *(Barbara) You used to drive to town, you would see animals, you would see at least twenty animals every time you drove to town. At least twenty animals, of bear, and moose, and caribou, and sheep, and elk. Now, you're lucky if you see one or two animals.*

Annie is more concerned about the wildlife than her own wilderness experience, as she said the past industrial development has created so much access into the area that it makes it easier for people to access it, but with increased risk for the wildlife: *"Nice for people to get into the area, but not so good for the wildlife."*

5.2.5 Theme 5: Wilderness alone – wilderness together.

The wilderness perspective MK users held varies and so do the reasons for their visit to the MK. It can, for example, depend on the type of activity they are doing. The same person can be looking for a different wilderness experience going in on a snowmobile versus taking a hiking trip in the MK.

Just like the majority of the interviewees share an escape motivation for visiting the MK, they also talked about what they look for. The dominant perspective was that being in the MK gives one the chance of experiencing solitude. Research shows that people put different meanings behind solitude: experiencing freedom, experiencing a remote nature environment, being free from the day to day pressure, and being with a small group of friends (Bosangit et al., 2004).

The interviewees' perspective of solitude varies, but the main reason for visiting the MK for the majority is to get exactly that feeling of solitude. Seeing other people did not

necessarily ruin their experience of solitude nor affect them in a negative way, as they think the area is not their private space. For example, it does not bother Farrah to see or meet other people in the MK because *"if you run into other people it's… they're probably like you, passing through."* The vast majority of the interviewees travel into the MK with other people, perhaps meeting other user groups, but they seem to be more forgiving if that group of people is doing the same type of activity. Kramer explains that when asked if he ever meet other people in the MK and if it affects him in any way: "*Yep absolutely yep… we've come across other horsebacks, other snowmobilers been in there yeah absolutely… No, no as long as they're doing the same thing I'm doing that's fine to me."* The MK is a big area and even if people meet there does not mean that they share a camp site or travel together. This goes both for longer and shorter trips, as Greg and Harry talked about: "*You know, usually if there is somebody there they'll see where you camped or whatever and they just keep going, because everybody is looking for solitude. And that is a pretty big area to spread out in." (Greg) "[O]n these short trips you almost always meet somebody else out there doing the same thing you're doing. Just enjoying it for a day, because it's just a quick trip. (Harry).*

Travelling with a group in the MK does not have to ruin the solitude experience.

One dominant view of the interviewees is that solitude can be experienced within a group of people, whether that is with one or two other friends or a group of 10 or more. Being surrounded by people in one's own group does not seem to affect the solitude experience: *"I believe you can experience solitude when you have others with you because it's only your group, your one, one group." (Ethan).* This may be because people are seeking the same kind of things and are doing the same type of recreation. Two interviewees told me

that seeing other people would affect their wilderness experience in a negative way, even though they were recreating with a group in the MK, which might indicate that they do not think of other members of their group as being "other" people. For some of them, meeting one other group in the MK might not necessarily detract from their wilderness experience, especially if the other group is doing the same kind of recreation, for example if a group of floaters would meet another group on the river.

Another view was that even though one is with a group, they can just step away from the group because they are not going to run into anybody else (other than their group members), as groups are so dispersed in the area. Morgan, who has floated several of the rivers inside the MK, thinks he can perceive solitude being with a group of friends but indicates that the type of recreation has something to do with it:

> *Yeah, it's funny, well you can be in a group of twelve or fourteen of us floating, and it feels like you're in your own solitude if you're in a boat and there is another boat you know, 100 feet away from you… Yeah, there are no engines running, dogs barking, I don't know… There is no mechanism, no motors… Yeah. So, when you're on that kind of trip, it's all about the sound you hear, or the wilderness sounds, the rivers running (Morgan).*

When Kramer takes a trip into the MK, whether in the summer or winter, he prefers to go with someone. Safety is one reason for this, as he often goes in on a snowmobile or a quad and mishaps often happen while doing motorized activities. At the end of the day, it is the environment he is in that can impact his perception.

> *Yeah, that's what solitude is to me you see. When you can choose your environment… But I mean when you sit around the campfire at night, you don't hear sirens, you don't hear guns, you don't hear all that stuff, I mean it's just quiet right? I mean that to me is solitude (Kramer).*

Only a few of the interviewees hold the opposite view regarding the possibility of perceiving solitude. In their minds, solitude means one is by themself alone, which can not be experienced when travelling with a group of people. When Annie was asked if she got the

solitude feeling doing the Wokkpash hike, she told me that she *"was pretty much always with the group, so not real true solitude,"* and asked if solitude means being alone in the wilderness, she said: "*Well, yeah, isn't it? If you're with a big group you're not really, but I don't know."* James was not quite sure if solitude can be perceived while travelling with others or if he needs to be travelling alone.

> *Oh, yeah, probably. Yeah, I think you can, you know, the aloneness, you don't know anybody… Oh, … can you, do you feel, have that sense of solitude, even when you are chatting with your six or eight or ten people. That are with you? Yeah, you probably can. It sounds contradictory, I think. That aloneness, that single aloneness is definitely solitude… You know, solitude with yourself only, solitude with you know, a small cohort of people. Yeah, it's doable, yeah (James).*

<u>Being alone does not always result in solitude but may result in feeling lonely or lost.</u>

Choosing who you travel with, sharing interest of the MK with someone, or having the same motivation to explore is important for many of interviewees to make the trip into the MK more enjoyable. Otherwise, the experience of certain attributes can turn into something else for those who are not motivated enough to stay there, and that can impact others in the group in a negative way. Paul thinks it is important to travel with the "right" group of people and those individuals need to have the same motivation for being there as he has. Otherwise, while some might perceive solitude, those who do not share the interest and motivation might feel a bit of loneliness. More importantly, this lack of shared interest can detract from the wilderness experience of people like Paul. He likes to explore the area and *"see what's around the next corner,"* and just enjoy being out there. He said if people are not enjoying themselves they might start feeling a bit of loneliness instead of solitude. If he can keep active while there he is not really reflecting on these feelings. He is enjoying the type of

recreation he is doing at that time, whether that is snowmobiling, quading, or hiking. He has experienced solitude while in the MK, but not always with the right group of people:

> *Yeah, I've experienced it a little bit. That's why you know it's kind of nice, but I'm one of those guys that know that you start experiencing solitude and you're in there for a walk. And then some people start talking that they already feel lonely and start missing stuff and they want to leave, right? So, I like to in that mindset, enjoy it, to feel it a little bit, but then when I start to feel like that I start going I don't want to get to the point where "Yeah well I want to go home'' you know? Because I've seen guys that ''Uhh it's been a few days can we go home now?'' I'm just like no, no (Paul).*

When Paul was asked if solitude is a negative experience, he said: *"No, no, but as long as you're aware of it you know, deal with it. I think you're fine, but… it'd be good for you or it can get you, you know what I mean?"*

While some people travel alone into the wilderness, others think it is not such a great idea. Some of the interviewees don't feel that comfortable going a long ways into the wilderness by themselves and prefer travelling with a group. For some it is a safety issue and Ethan thinks that when someone is all alone in there, that usually means that person has got into trouble and is lost.

5.2.6 Theme 6: Naturalness of the area - a feeling of being first.

While most of the interviewees think there are places in the MK where there is a possibility of getting the feeling of being the first person ever to stand there (no sign of human evidence), not all of them believe that, and Annie is one of them: *"So, you know, there is no place I don't think, in the whole country [the MK] where you can go, and somebody hasn't been. And if you really think that, you are fooling yourself."* She was maybe one of two or three interviewees that held that opinion, while a few of the others either think there are areas that no one has ever been to, or they have the feeling of maybe being the first person to stand on that ground: *"And I was like 'this is not a human trail.' Humans would not have walked this, but we could have easily been the first couple of humans to walk that*

particular line" (Emily). Emily also talked about the naturalness of the area, how pristine it felt and despite the knowledge that people must have been through that particular area, it still felt fairly pristine: *"Like you feel like you know people have been through there, but you don't know, like it still feels like not a lot of people have been there."* Getting the feeling that not many people have been in the area you stand in, but still knowing that people have traveled through might indicate good behaviors and a respect for the environment of those who passed through that area before, and as Kramer said: *"If they're leaving it in the natural state they found it… as long as you don't disturb what's there."*

Some of the interviewees mentioned that they like to explore when in the MK and to discover new areas to visit, maybe areas where no one has been to before. On Ethan's most recent trip, he went to a couple of valleys he had never been, and he found those valleys virtually untouched even though there was an old trail where someone had taken horses through many years ago. He still got the perception of being the first one there in years, which was what he was looking for. "*You know I was probably the first one that's been there in several years so… So that, that was kind of the wilderness attribute that I was looking for."* This might indicate that the feeling of being the first person to be in a certain place, does not have to mean being the first one ever to stand there. It might even mean being that person's first time in a particular place:

> *I've always remembered those experiences as being some of the best ones because you're just kind of on your own, you're playing around in the wilderness, you're the first ones to pick those lines, you're the first ones to kind of see it from that certain viewpoint. You're the first ones to kind of be the you know, other people definitely may have been there and hiked or biked or skied around there, but I think it's really fun to just kind of be there with some friends in the parts of the wonderful place that you've lived, and then you're still a tourist, you're still experiencing it for the first time. It's really nice and you know, pretty awesome (Nick).*

According to the interviewees, it is important that human presence and input in a wilderness area is kept to a minimum and where the chances of running into other people are low, the absence of human impact most often gives a positive experience. When Annie was asked what wilderness is to her, she said: *"Countryside that´s kind of been let to develop by itself, I guess, more than anything."* Ethan's perspective of wilderness is consistent with a western settler perspective, where he thinks wilderness is an untouched landscape: *"And what I mean by that, there is no commercial developments, there's no roads, there's no buildings or lodges you know, like cities, towns, light-posts and such things."* Nick believes there needs to be a combination of wildlife, flora and fauna in an undeveloped nature:

> *I think I believe wilderness, you know, changing and dynamic landscapes and undisturbed nature and undeveloped nature. So, you know I believe wilderness is you know, undisturbed views and getting out there and being kind of part of the nature and you know, there's wildlife and lots of flora and lots of fauna (Nick).*

There are certain things that can easily detract from the wilderness experience in way that users had certain hopes or feelings getting to a place but saw or heard something that they did not expect to see or hear. Annie experienced exactly that when she was working up in Yukon some years ago:

> *[W]hen I was working prospecting up in the Yukon and we could set up by this helicopter like in the middle of nowhere on top of this mountain. And we found a Coke can, somebody left down in the bush, you know. And it's like, ok we thought we been the first people there ever (Annie).*

5.3 How do MK Users Differ?

Diversity amongst the MK users was addressed in my third research objective: to examine the diversity of MK users' perceptions of wilderness. Three themes addressing this topic were identified (see figure 10).

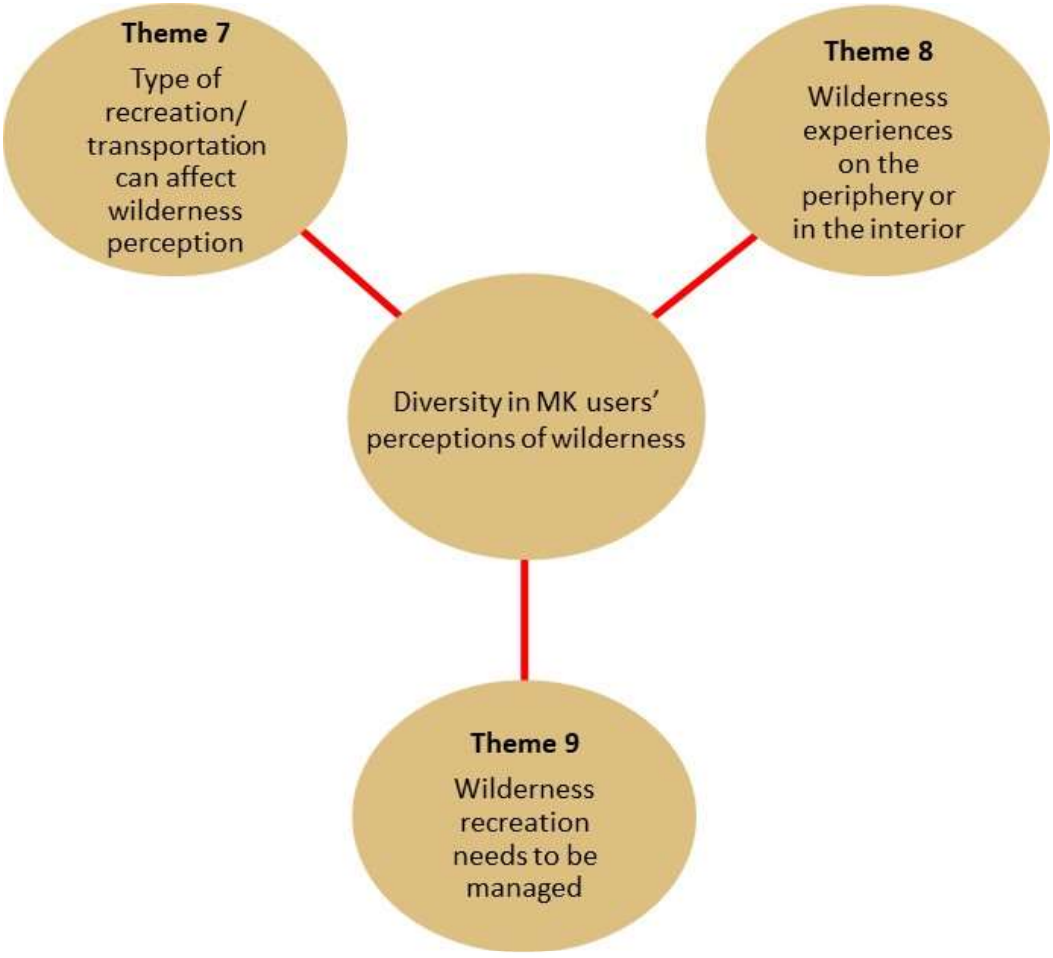

Figure 10. Themes identified by addressing diversity of Muskwa-Kechika Management Area (MK) users' perceptions of wilderness.

5.3.1 Theme 7: Wilderness perception can be affected by the type of recreation and type of transportation.

Where people are located inside the MK seems to have an impact on their wilderness perception in a way that can both add to, and detract from their wilderness experiences. The interviewees encompassed a wide spectrum of wilderness perspectives, from being able to perceive certain wilderness attributes on the highway to having to be 40-50 miles into the interior zones of the MK. What can affect the wilderness experience is, for instance, whether one is doing a motorized activity or a non-motorized activity.

The type of recreation can impact the wilderness experience and detract from others' experiences.

Interviewees familiar with the MK tried to stay out of places where others are or have been, as they seem to know where other people are camping, and they do not want to be the ones that ruin other people's experiences. When Oscar was asked if he carefully picks the places to avoid meeting others in there, he responded: *"You know, we know where other people are camped, different time of the year. So, I mean, you know, about miles away. It's not just like you're gonna [push] your way into somebody else's camp."* When discussing the increased traffic in the MK with the interviewees, Banff and Jasper National Parks were often mentioned as areas where the chance of getting the true wilderness experience is on a decline. Many of them said the MK is such a unique wilderness area and how important it is to preserve it from devolving in that way. Fred was very impressed on his first trip into the MK in the summer of 2017:

> *I think that if it´s possible try and not allow any development to happen in there. The entire area, because there is no other place like that. I just don´t know any other place that you can have this experience. Down further south, in Banff and Jasper it´s too crowded with people (Fred).*

Even though some of the interviewees have seen the number of people recreating in the MK go up and talk about how detracting it can be to meet other people there, the type of recreation can impact if it is going to be detracting or not. When Bob wants to go hiking by himself, for example, on any of the trails the MK has promoted in the Toad River area, he said he can not because *"it's just like down south, you're gonna meet somebody there."* It is different when he and his wife Barbara are floating the rivers with their group of friends, as they usually do not get much detraction from others, such as river boats or other floaters. They have taken trips where they did not meet anyone the whole trip, or where they have also

just met one or two other groups. Coming across someone once or twice on a ten-day floating trip is not a bad thing in their minds. When the hunting season starts in the MK, the real traffic begins, and it is not their favorite time of the year. They live in close proximity to the MK, and especially during the elk season there is a constant traffic of river boats every day going up and down the rivers transporting hunters into the area. That, to them, is very detracting. Another thing mentioned was that over the years the snowmobiles have been getting bigger and better, which has made it possible for that type of users to get further into the area. One of the interviewees said that in the last few years he has seen people in some of the remote areas of the MK where he never used to see anyone before, because it was hard to get there.

Farrah and Annie are on the opposite side from Bob regarding seeing other people on the trail system in the northeastern part of the MK. Farrah did several day hikes in and around the Toad River area with a few of her friends, and they did not come across other hikers during that time. Annie, as many others, agrees about the condition in Jasper and Banff:

> *Like, you know, when I was a kid we camped a lot near Jasper and in those days, you know, once it's super busy. But now, you know if you go down to Jasper, like I don't think there is probably any trail where you could hike on where you wouldn't be constantly running into people. Or as up here, if go like that Wokkpash hike, you could hike for a week and you might see one or two other groups of people, and you might not!... And you know, even right around Summit where it's close to the highway, you could go for a day hike and not see anybody else sometimes. And you know, sometimes you might run into people and sometimes you might be with a big group of people (Annie).*

Other interviewees mentioned the Wokkpash hike as a popular hike to do, and even though they see other people, they most often do not share a campsite.

Emily and her group were flown into a remote area of the MK, where they spent about a week doing different things. For the entire time they were the only group in that

particular area, and a few times she felt like she could have been the first person ever to step a foot on the ground in that particular place, while at other times there were clear signs that someone had been there before, for instance, fire rings and litter. Sometimes it was not so obvious to tell if other groups (or individuals) had been there before or what impact they have had on the environment (if any):

> *Like you feel like you know people have been through there, but you don't know, like it still feels like not a lot of people have been there. It is like space, you know people have been up there, but you don't know how many people or what impacts that has had on different things (Emily).*

How people travel into the MK can have impact on the wilderness perception.

Type of transportation and remoteness seem to have an impact on the interviewee's wilderness experience. Some feel they have to travel into the remote areas of the MK to be able to experience wilderness, while others say they can get that feeling along the highway. When talking about different types of transportation with the interviewees, some types were regarded purely as transport to a location or a destination, not specifically as recreation or enjoyment. In order to get to some of these remote areas there is no other way than being transported in, as hiking in could take weeks, if at all possible. Therefore, some of the interviewees think about getting to a location as just a type of transportation, not recreation. Oscar and Morgan have both taken riverboat transportation to a certain destination within the MK. "[W]*hen you're on a river boat, you can't enjoy any of it while you're driving, it's so loud and you are going so fast." (Oscar).* Morgan thinks the noise from an ATV can be disturbance, as well as the noise from a riverboat. Until he stops, and the engine has been shut off, he finds it difficult to enjoy the environment he is in:

> *If you're going in a similar place with a quad or something, you'd have the noise of the quad and you wouldn't have peace until you're stopped… But maybe that's what*

> *river boaters [jet boaters] get too, because you can't enjoy the riding on the boat, but when you stop it's sure nice* (Morgan).

Oscar has taken most types of transportation into the MK, except by horseback. In his opinion, riding an ATV can be enjoyable, but sometimes the purpose of going in on a quad is just to get to a location to set up a camp.

> *We just drove strictly to wherever we were going to camp and shut the machines off. We had a destination in mind and that's where we went. We didn't do any, you know, stuff like we are doing mountain climbing or any that sort of stuff. We're just using the machine to get us to a location. I really enjoy being on an ATV in there. I do enjoy it, yeah, at your own pace then. On a quad it's pretty easy to stop or decide to love and enjoy it. I think horseback would probably be the best, but again, not feasible for me for horses. Pretty expensive (Oscar).*

When the interviewees were asked if they could identify the moment when they felt they were experiencing a wilderness feeling, some of them could point out an exact moment on their trip, like Fred: "*I think when I went hiking down to the Prophet River Hot Springs on my own. For myself, I needed to be able to feel the freedom and the freedom, the isolation and the solitude gave me this freedom.*" For some of the others, it was the type of transportation that affected their experience:

> *You know it really does when you get, the ones where you get flown in…when that last float plane leaves, you get that feeling… When you start to hear, it is the last 10 seconds that you hear the plane. You hear it take off and you hear it, you hear it, it will get fainter and fainter, you might still be able to see it. But when you lose that noise, that is when it hits me (Lewis).*

Lewis and Gwen (a couple) said it is a different feeling leaving from the highway than being dropped off by a plane. The noise from the highway (and from general traffic) gets left behind when they start paddling down the rivers, so they are not specifically paying attention to it as much as when the plane that flew them in leaves:

> *The trips that we've taken from the highway, once when you leave the highway and that is behind you, yeah. That is more sudden when it is a float plane taking off. One time I was on a grass strip and it was the same thing when the last plane takes off, you know you are at the guide outfitters camp on Tuchodi and that plane took off and*

gone and it is like, we are here in July and they are not coming in to hunt until August and everything is locked up, you are still…still that remoteness (Gwen).

Ian talked about similar things (although not an experience from the MK). When he gets flown in, a feeling of solitude hits him when the plane leaves, and he realizes he is on his own in there for the next week or so. Even though it is a nice feeling, he said it is also a humbling feeling.

5.3.2 Theme 8: Wilderness experiences on the periphery or in the interior.

Remoteness was a factor whether the interviewees considered themselves in the wilderness or not, or if a wilderness experience was possible to get or not. Some said an area needs to be set in a certain distance from the highway to be considered wilderness, and one talked about isolated wilderness and non-isolated wilderness.

<u>An area has to be in a certain distance from the highway to be considered wilderness.</u>

Greg lives about two hours out of Fort Nelson, and in his mind the ideal wilderness area should not be accessible by road, and therefore he does not feel he is in the real wilderness until he gets to a certain distance away from the highway: *"I don't know, five miles before you, before it cuts in what I consider wilderness. Which is you know, no other people, or a few… you can't drive there."* Chris has been multiple times into the remote areas of the MK, where he has used different types of transportation, like snowmobile or river boat, and he talked about the isolated wilderness vs the non-isolated wilderness. By isolated wilderness, he means: *"I guess as soon as you step out of the zone where there is nobody else to help you. There's a little bit of you know, serenity, I mean, all by yourself somewhere."*

Remote more by distance than time (plane vs horses).

A few of the interviewees have regularly flown into the MK, either in a plane or a helicopter, and for some of them it has most often been work related. Even though they have done some type of recreation in the MK, (e.g., hiking and hunting) and experienced certain wilderness attributes on those trips, they get to fly into some of the most remote areas of the MK and feel very fortunate to have that opportunity. They are aware of how remote they have been, and some of those areas are very hard for anyone to get into except by aircraft. The distance from the nearest town or a community is measured in hundreds of miles, and it could take days to get to some of these places, for instance by horsebacking. Still, they are only maybe a couple of hours away by aircraft. How remote you are might depend on what you are doing and how you travel, as Andrew, a helicopter pilot, puts it:

> *For me remote would have been, you know, it would have been sort of more by distance than time. So, and when I say that, you know, I have lots of friends that would you know, ride horses in you know, long ways into the MK. You know, for hunting, mostly. In a lot of cases, they're, like three or four days from their horse trailer, but we're only, you know, in almost all those cases, we're about an hour and half away from the mountains… So, it's you know, again it depends on who and what you know, who and what you're doing (Andrew).*

Sometimes Andrew and his group stop for a few hours while doing a certain job out there, but they are still aware of where they are and try to enjoy the scenery and wildlife, although their aircraft might be in sight. When Farrah was asked if she could name a certain moment where she had the feeling of experiencing solitude, she mentioned a day hike above Beattie Lake while staying in a cabin there:

> *You know, sounds weird but even when we went up in a helicopter and landed in the middle of nowhere. Sure it´s a helicopter sitting there, but still you know, just taking it all in… It was just out there in the middle of nowhere, yeah. So definitely that feeling that you are here and it´s a long way to anybody else (Farrah).*

No need to travel far to get the wilderness experience.

How quickly the interviewees feel they can be in the wilderness varies and, while some can get that feeling on the highway, others have to be in a remote area to consider themselves in the wilderness. Again, the type of transportation matters here. For instance, you can get pretty remote by flying for an hour or an hour and a half, compared to travelling by horseback or hiking in. Charlotte has driven the Alaska Highway up to the Yukon a few times over a twenty-year period. Changes she has noticed over the years include an increased number of service roads along the highway, and how many gas stations, or highway services, have closed. The distance between highway services made her get that wilderness feeling while driving, especially the part of the highway that is within the MK. She felt she can park her vehicle somewhere along the highway and take a short hike, where she said she is able to experience peace and quiet with only the sound of the wildlife and ability to watch the birds, as she is an avid birdwatcher. James, on the other hand, does not get that wilderness feeling driving the highways, although he has not driven the Alaska highway, but rather, mostly in the central interior and towards the lower mainland: *"But I never thought of those as wilderness travels. Always on roads and the highways."*

Nick is one of the interviewees who felt he can get that wilderness feeling while on a road trip, and even wilderness attributes like solitude can be experienced on the highway. He also talked about how the solitude feeling increases the more remote he gets.

> *To experience wilderness, you would have to get away from major developments and major cities where there is you know, limited access and you know maybe it involves hiking or getting out of you know, a vehicle and stuff like that. I noticed many times that we would be the only car and we wouldn't see another car for fifteen, twenty, half an hour sometimes even going the other way. So, you know, if you stop along the road and turn the car off you can, I think it's definitely possible that you could you know, you could feel solitude, and you can feel like you're the only one there and you know, that'd be pretty. And every once in a while, we'd just kind of pull out on the*

> *small pullout and we'd stop there for ten fifteen minutes and there wouldn't be anybody there. So, I think it's definitely possible that you could get out of your car, walk a few minutes perhaps along a trail… or just to the, to an open walk and you can, you could experience solitude… So you know remoteness can play a role and I believe the more remote you get, for me anyways, the experience does get a little bit better, because you're getting away from the hustle and bustle of the city or experiencing more what nature you know, was in the past before development and you're you know, you're experiencing new things, and new scenery, and new ahm dynamic nature (Nick).*

One interviewee believes he can get that wilderness feeling by travelling about an hour north of Fort Nelson, where he feels he is away from everybody and with zero cell service. His friend owns a river boat, and if he is travelling with his friend, he said he can be in the middle of nowhere within a couple of hours after leaving his house in the Fort Nelson area. Dave said that in about 10 miles out of Fort St. John there are spots that he would consider wilderness and with relatively easy access. As a pilot and with great knowledge of the MK, it only takes Dave 1-1.5 hours to get to the very remote areas of the MK where he can be the only person in about a 30 miles radius. He does sometimes fly in there alone and spend a few days in there doing some shorter hiking trips.

As mentioned above, there is a difference between when people get a feeling of being in the wilderness or consider themselves being in a wilderness area. At least two of the interviewees talked about having the wilderness right in their backyard, although one lives in the Fort Nelson area and the other one in Prince George. The one in the Fort Nelson area lives on 5 acres and has a camera at the end of his yard where he records the wildlife passing through. James has never visited the MK and his backyard in Prince George backs on to green belt area where he can recreate both summer and winter:

> *And my property backs on to green belt area. And I can go up the hill there, snowshoeing, and I mean there are all kinds of trails from the motorbikes, from the quads and that all kind of thing. But much of the time there is no, you don't run across people. And you can go from here, right up to Chief Lake road… Yeah, and sort of, in that whole area is, you know, fairly wildernessy. Seems to me… [Y]ou*

don't have a lot of noise. Ahm, now in the summer time, probably, you have noise from some motor, you know, the ATVs and that kind of thing. But if you don't have those people running around, then you'd certainly, we didn't this summer, because of the forest fires, because they weren't allowed. Yeah, it's peaceful and you keep your eyes open for animals, so you don't have conflict with them (James).

5.3.3 Theme 9: Wilderness recreation use needs to be managed.

The accessibility to the MK matters when the interviewees talked about how quickly they can escape into the MK, especially for those who access the north and the northeastern part of the area. In these areas there are fewer people recreating, which means the users have a greater opportunity to get away from people and have that true wilderness experience they are looking for. Many of the interviewees who live in close proximity to the MK were concerned about the increased traffic into certain areas of the MK. They noticed it, for example, by seeing more horse trailers parked in certain areas and the number of trucks in boat launching areas. Oscar has noticed this increased traffic over the years:

I see way more river boats up there now, than I did sixteen years ago when I got here. And when I got here, you could go up to the landing, you know, beginning of hunting season and you might see thirty or forty trucks. And now you go up there and see 150 trucks. So… Yeah. or more, the whole parking area being full…They are pretty much all hunters. You don't see them here any other time of year, beside hunting season. You can only see it if you're hunting (Oscar).

Some of the interviewees, like Diane, had also been aware of the increased traffic with the horses and prefer not to go into the MK in certain time of year, as it might impact their wilderness perception in a negative way.

Now to people who bring horses. There is one near the Tetsa River pullout, I'm going up and then coming down. There must have been a dozen horse trailers in that one spot. You know, because it was short after the hunting season opened... That's why we don't do float or hikes this time of year, because it is all hunters out there (Diane).

The hunting season seems to be worse than any other time of year. The interviewees' concerns regarding this increased traffic were both about the impacts this increased traffic can have on the naturalness of the area and on the wilderness experience of the users. Due to

this increased traffic, they try to avoid being in the MK during hunting season. One thing that Chris mentioned was the difference in behavior of the wildlife during hunting season and outside the hunting season.

> *I see that ahm, the animals seem to be very diverse and knowing when it's hunting season and not. Because they do seem to take off from people, they disappear into nowhere when it's hunting season, but when it's not hunting season they all just stand there, and the boat and the stuff doesn't seem to really affect them. (Chris).*

While some of the interviewees prefer not to be in the MK during the hunting season, others go in there specifically to hunt. Those who hunt have either noticed this increased traffic or heard rumors of it. It does not necessarily affect them all that much, even though they might meet other hunters on their way in, as their final destination is most often not the same. What worried them, on the other hand, is that with better or more open access into the MK and a resulting increase in traffic, the wilderness value of the area can decrease greatly, especially with more remote areas seeing heavier traffic. Ian, who usually hikes into the MK for hunting, never expects to see many other people, either on his way in or when hunting. It seems to be more common to meet others when horsebacking into the area, most often hunters, but not always, as Ethan said:

> *Most of the people that I run into in the MK are hunters. I have run into a few folks who were just trail riding, which is nice to see being that they just wanted to be out there just to see the MK. The thing that worries me though is more and more of us do it, that they, you know it's going to lose that wilderness value and, and I think that's detrimental to the MK as a whole. The fact that it's trying to preserve that landscape in as close a natural state as it can, right? That was the whole idea. But to allow the traditional use, allow access to it. I'm always conflicted with the access part. You need to be able to allow people to go and experience the wilderness, to understand it, so they can get an appreciation of what value it has so they'll want to protect it. But if you let too many people in, it takes away from that wilderness and actually destroys it. So, the MK has been trying to strike a balance with that and I think it's been relatively successful, and I think it's very important that that continues (Ethan).*

Others also talked about what Ethan indicates, that the MK should be open to people who want to go in and have a real wilderness experience, enjoying what the area has to offer in

terms of recreational opportunities, diversity in wildlife, and the naturalness of the area. A large portion of the MK is very remote and not accessible to many people, and that is what drives some of the interviewees to go into these places as the chance of experiencing some kind of distraction from other users is very small; besides, those interviewees who want to go into those remote places tend to have a good knowledge of the area. Kramer thinks he picked just the right place to hunt, and he and his hunting partners keep going there because *"there's very few people going in there cause it's quite a long horse ride in and you can't get there by river boat, there's no airstrip close to there."*

Not everybody holds the opinion that remote areas of the MK are getting less traffic than the more accessible ones, and areas that were thought to be less impacted by traffic years ago are becoming more popular, especially to hunters. Chris, for example, has been going into the MK for over twenty years, and he said there is a lot of the MK that *"is untouchable to other people, still. There are spots of the MK that is very heavily used. And there's spots of it where not many people go."* The part of the MK that is closer to the Yukon border is more difficult to access, in his opinion, and when talking about the more heavily used areas, he continued:

> *The Tuchodi, the Toad, you know, I've watched it evolve in the last 20 some years I guess, from when I first started going into the Tuchodi, how many people were there. That's very heavily impacted. The outfitters, the packers, the amount of people that are being dropped off there to hunt. That type of stuff. It's not quite so secluded anymore (Chris).*

Those who treat the environment lightly and those who do not.

Most of the interviewees have seen examples of both bad behavior and evidence of it. According to the interviewees, there are some visitors to the MK that do not treat it with respect. Nor do they show respect to other visitors that may be in close proximity to them -

people who are trying to experience peace and quiet in the MK. There were stories of people that did not pack out what they brought in, for instance, in terms of littering, and also 'taking over' campsites that others (regular users) have been using for years, not that anyone is entitled to any area in there. There were concerns about increased traffic into the MK of people who do not seem to appreciate what the MK has to offer in terms of wilderness experience. A more open access, as some interviewees mentioned needs to happen, still might come with a price. Oscar is one of those who would like to see the access into the MK opened up a little bit, as it would benefit the experienced visitor, but at the same time he would be concerned about the general user of the area:

> *I mean it would be nicer to get some more access to the area, but at the same time it's scary thought of the general public having access to it… You can see it already. The amount of people that can afford river boats. Now you're getting a lot more river boat traffic. You are not getting people that really appreciate the area they're heading into. It's just that they have the money, they can afford to go there, so they go there. They don't really appreciate it so. You see garbage and litter, and you know. Just respect for the environment (Oscar).*

When Oscar was talking about the people who just go in there and camp anywhere, he said:

> *They do some research, look at some maps and whatever. I mean, they just go up and try to find a place to camp. You know, a friend of mine that have camped in the same area for twenty years, and they all show up in their camp, and there would be someone else at their campsite. These guys, they just come, and they see a good area and get out and set up their tent, but, you know. It's not really their land, they can't kick them off them, but it's a hard-written rule that this is my area, stay off (Oscar).*

Those who appreciate the MK and go in there to enjoy and show respect to the area, do not necessarily want to see it as an untouched area, as if nobody has been there before. For wilderness users like Farrah and her husband Steve, seeing evidence of others when they are passing through is fine, as long as they do not have to clean up garbage from other visitors.

(Steve) Rather than having a lot of places around the edge of a lake, having one spot, not through, through regulations, but just merely through the efforts of individuals that clean it out, move the rocks, make it a good camp spot…
(Farrah) Yeah, I think…
(Steve)…I find those, use and get appreciated.
(Farrah) So, some people might say, "oh they're really get bothered if there is a little fire ring there, oh somebody left a fire ring!" that doesn't bother us… It just like, there was another wilderness traveller here… It doesn't bother us at all because what we see there is interesting. Somebody else was here, they left a fire ring, they were wilderness travellers, that's just fine.
(Steve)Now if they left a bunch of trash…
(Farrah) Oh yeah!
(Steve)…That's annoying to us.

When talking about respect for the environment with the interviewees they all thought the wilderness should be cared for and when there, people should leave a small footprint. That is what Barbara and her floating group do: *"Yeah, it's zero footprint camping. That's what we do."* Coming across garbage or some leftovers from other visitors can have a big impact on user's wilderness perception. *"What bothers me is when I see somebody leave garbage, so if there's a group somewhere and they've left a mess." (Kramer).* Ethan said the same thing: "*So, and those, all those types of things to me take away from that wilderness experience, right? You don't want to see people's junk."* Andrew once flew into the MK with customers (scientists), and while there he took a short hike. He found a spot where he got the feeling that he might have been the first one to be in, but "*then I looked down and there was an old rusted can of beans."*

One of the reasons mentioned why some users leave their garbage or some of their stuff in the MK instead of packing everything out is that they might have seen some evidence of industry, such as mining activity, and believe that since this is there it should be fine leaving their stuff behind too. How the population in the surrounding communities is developing seems to affect the traffic into the area, and when the population booms the traffic into the area increases. In those situations, according to Paul, it is the kind of people with

little wilderness experience that want to visit the MK, and they can have a negative impact on other people's experience in the MK, not only by littering, but also with heavier traffic the trails get hit hard:

> *[Y]ou know, good people going in there and packing out what they're bringing in. But then you get people going in that are being lazy, because they saw that was mining activity and stuff in there and the miners had stuff in there. Then they can just drop their crap and leave it in there so, beer cans and garbage and stuff like that… But I noticed the change big time once the population blew out in Fort Nelson five times, right? Because people are working they want to get away and they have a good time they go out, camp out, have a beer and leave it there (Paul).*

Evidence of others can also be seen as marks in the ground where trails are worn into the ground because of heavier traffic, and tire tracks can be seen outside designated routes on very fragile ground which could take years to recover, if ever. According to some of the interviewees there is so little maintenance in the MK that whatever damage gets done, stays:

> *[L]ike even the hiking trail at Summit, it's so wore into the, like some of [the] trails are two feet deep wore into the tundra, because there's been so many people on it… [B]ut there are people that are really stupid on quads that go to places where, like at the top of Summit, if you go up the 428 road, you will see at the top of the tower, there are tire tracks that go down along the flat. It must have been there for twenty years, because of that (Barbara).*

5.4 Is the Wilderness Experience Compatible with Natural Resource Development?

The unique nature of the MK as a 'working wilderness' means that it is possible that visitors may encounter resource development in the MK outside of the protected areas. My final research objective addresses natural resource development and whether encountering any development affects the wilderness experience of the MK users. Four themes were identified addressing this topic (see figure 11).

The impacts from industry on the wilderness experience were discussed in the interviews. A few of the interviewees were, or have been, working for industry, mostly oil and gas, and they obviously had come across resource development use and knew where to

find it within the MK. Most of the others have come across some sort of natural resource development use inside the MK, and for some of them it does not affect their wilderness experience, while others do not want to see it happen within the MK boundary. A few of the interviewees mentioned that it would depend on how remote they were in the MK as to whether it would bother them to come across natural resource development.

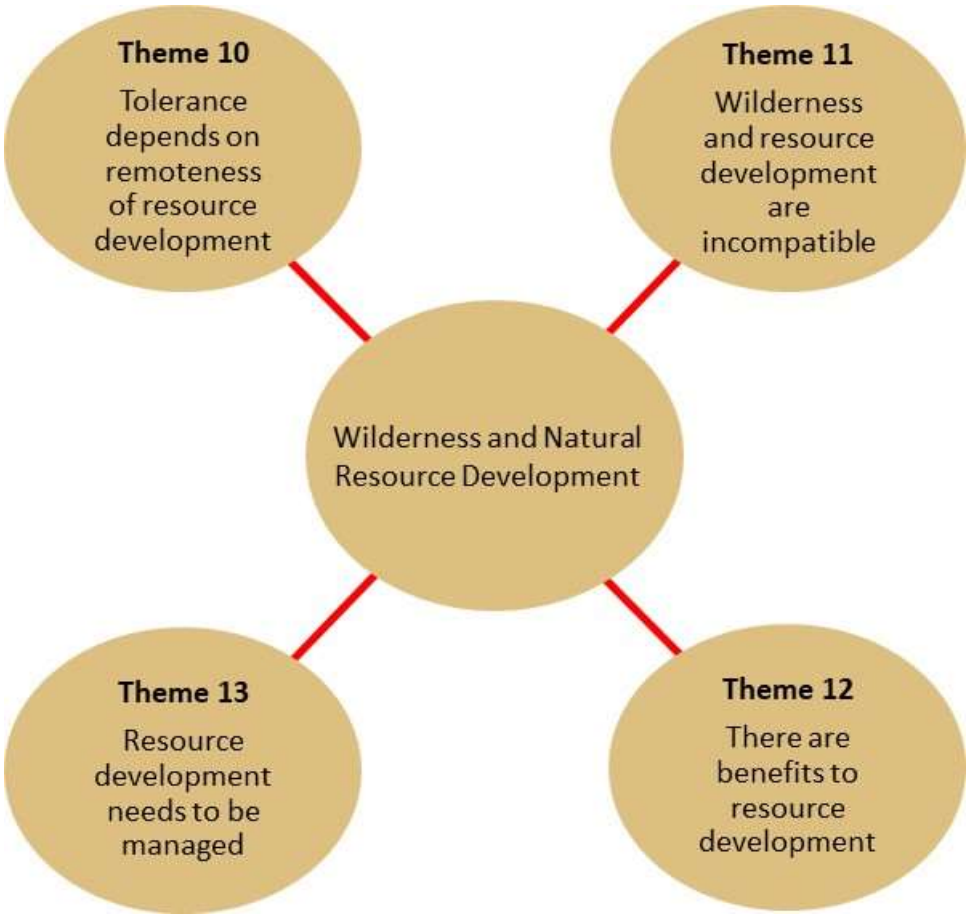

Figure 11. Themes identified by addressing wilderness and natural resource development.

5.4.1 Theme 10: User tolerance for encountering resource development can depend on the remoteness of the resource activity.

Many of the interviewees have seen signs of some resource activity in the MK. Where in the MK that happens effects whether it has a negative impact on the wilderness

experience or not. For those who would tolerate coming across some sort of resource activity, seeing signs of it close to the highway, or close to their start or ending point, does not seem to alter their wilderness perception much. When Emily was asked if seeing signs of resource development use in the MK would change her perception of the wilderness, she said it would depend on where it happened: *"Front-country I would expect to see it but backcountry I wouldn't expect to see it."* She said it would affect her more seeing it in the backcountry: *"I think we would be losing something quite special out there… Not as pristine."* How often the interviewees see signs of industry on a wilderness trip matters too. When Lewis is on a 7-10 day floating trip, it does not bother him seeing it occasionally, nor does it bother him much seeing it where they start or end the trip.

> *If it was relatively low frequency probably not … for me anyways, if there is one spot on a whole trip it wouldn't really bother me. Or at my pull-out spot that wouldn't bother me either… It would be less… less significant if it was at my start point or at my end point. Seeing it mid trip would definitely have more of an effect, but I don't think it would really bother me at all if it was just incidental one or two, no. Two over three hundred kilometres, one every 100 kilometres along the river system would be no big deal to me (Lewis).*

Both Oscar and Morgan felt that seeing signs of resource activity in the remote areas of the MK would have a negative impact on their wilderness experience but seeing it within a short distance from the highway would not hurt so much. *"But if you're back…if you've flown 300 miles into the bush or 150 miles into the bush to get into the wilderness and then you get there and, yeah, I don't know" (Morgan). "I mean, you go in there to be in the wilderness. You don't want to go in there, show up and see a rig in there drilling for gas" (Oscar).*

5.4.2 Theme 11: Wilderness and resource development are incompatible.

Not all of the interviewees feel that natural resource development should be allowed in the MK, even though they may understand the necessity for industry in BC when it comes

to driving the economy. Coming across any resource development use in the MK would take away from Ian's wilderness experience, although he understands the need for it:

> *Yeah, I mean sure. It takes away from the experience a bit. Takes away from the remoteness. Yeah you just hate to see an area like that suddenly become you know, affected by, by resource development. So, I mean, yeah, I understand the need for it, but if we could keep that kind of resource development out of the MK, I think that would be best for everyone (Ian).*

Those who have seen evidence of resource activity said that it affected their wilderness experience and sometimes the companies did not do a proper cleanup, or their attempt to restore the land was not successful. Farrah believes that once land has been developed and then restored, it has lost some of its wilderness value and it will take more than a lifetime for the scars to fade. Therefore, she wants to keep such developments out of the MK, or at least portions of it. *"I do understand about the Muskwa-Kechika being zoned… so probably in the future I would go to the places where the development wasn´t happening."* As long as the resource industry stays outside the MK boundary, that satisfies Kramer: *"Well, I don't care if they come close to it but I mean the MK has a boundary, so if you stay outside the boundary I mean that's fair game to me but I wouldn't like to see any industry inside the boundary."* When Greg was asked what wilderness is to him, he found it difficult to explain, but what was in his mind was *"roads, industry, logging, oil and gas activity ahm, as soon as you introduce that, you do not have wilderness. There is no way!"*

5.4.3 Theme 12: There are benefits to resource development.

Seeing signs of natural resource development in the MK does not negatively affect everyone's wilderness experience, whether in the interior zones or not. Chris' work in the oil and gas industry might affect how he feels about this: *"I don't think it affects me I guess, but I might look at that different, because I'm an oil and gas guy."* For Diane, it would not

matter coming across some resource activity because *"I think if you did see it, it would only be, it wouldn't be the whole experience."* It bothers her more to see the mess that some of the wilderness users make and according to her *"river boaters seem to be the worst."* What might impact her feelings for the industry is that she sees the benefit for her community, which is the Fort Nelson area:

> *And then the other part of it is, I see the benefit for my community. With the resource development. Especially right now, we are hurting so bad. We don't have the forestry, we don't have the gas. You know, so many businesses are closing. And so, for the community, like economically… it would help a lot, yeah. … And I think with the right controls in the area, you know, you still maintain that experience, wilderness experience out in the Muskwa-Kechika…But you could still allow it and balance it out. Like I think a lot of industry now realizes they can't just go in and decimate the land… They need to you know, keep it pristine as much as they can. And make as smallest footprint as they can… I think they can work together, the wilderness experience and industry. It's just you know, the question of how they work together and what kind of rules you can put in place. Without pushing industry away, making it so onerous that the industry say: no we can go somewhere else. And then you don't have any of the benefits (Diane).*

Past industrial development has provided access routes into the MK.

According to many of the interviewees, there are pros and cons to allowing resource activity within the MK. For many of them, the roads and cut lines laid out into some of the areas, have given easier access into those areas, allowing the users to get further in, and in a cheaper way:

> *Accessing Tetsa Lake, definitely you use the cut lines quite a bit… When I go to the Pink Mountain area, like to see a cut line and see where you want to go, that's how we, it helps us with snowmobiles. We have no other way that I would get to Redfern, or any of that stuff, if it wasn't for the cut lines (Chris).*

The seismic cut lines seem to give access to areas that would otherwise be almost impossible to access, as Chris mentioned above, and the users appreciate the access, especially those who like to explore the area. Another view was that if it benefits their type of recreation,

some of the interviewees would like to see more access. Morgan said that several years ago there were talks about some resource development in the Toad River area, which would have meant new roads and benefits to those who float the rivers and would make the trip cheaper. *"[W]e could have floated from here down to Scatter River and had vehicles there and got out and come back. So, logistics would have been a lot easier to do that float" (Morgan).* Diane does floating trips too, and she agrees with Morgan when it comes to easier access and the possibility of doing longer floating trips because of the access made by the industry:

> *Well if there is a road, then we can park our vehicle down there, we can do a three or four day float and get out and not have to hire boats or, you know… But yeah, so to me that is one of the pros to the exploration, is that it usually opens it up a bit more as far as roads go" (Diane).*

Paul likes to discover new areas while in the MK, and therefore the access that the industry has made is appreciated. Also, if new developments start, they would not necessary affect him because they would possibly open access into new areas. When asked if coming across a mining activity would bother him, he said:

> *No not really. It happens, I kind of expect it to be a resource base in Canada. It's you know, it's alright because they put the roads and stuff in there that allows me more access to get into places. So, it's give a little take a little. So, I don't mind that because one year I'm restricted because of these guidelines, and we can't put trails in there. But all of a sudden a mining company would have to log, and they can all of a sudden put a road in there which is great, because now that opens up places that we want to see. And being a curious guy wanting to see around the next corner it opens up more areas for me to go explore. I kind of don't mind it myself because like I said it's as big as Nova Scotia that park, so more access the more I get to see it, but you know the more I get to enjoy it, really (Paul).*

Easier access, or more access into the MK, can come with a price. Increased traffic can be harmful for the environment and the naturalness of the area, which can have negative impacts on the wilderness experience. Some of the interviewees mentioned that when there is an easy access into certain areas, people tend to go there just to party and they leave garbage, which takes away from other users' wilderness experience. Ethan said that *"the more access the*

people have and the easier access, the more, the more the environment suffers. Right?" It can also be a disturbance seeing other people in areas where there used to be peace and quiet.

5.4.4 Theme 13: Resource development needs to be managed.

Some of the interviewees have seen the industry do a really good job restoring the land and cleaning everything out after shutting down an exploration site. Andrew did some work for the oil and gas industry, and he has seen areas where the roads into those areas made by the oil and gas companies have been taken out: "*And there are some really good examples where the access has been remediated, like extremely well. So, it would be hard just to go in there and say, oh that's a road or that was a drill pad."* According to those interviewees that have been around the resource companies and have taken part in cleaning up after they shut down, some types of resource development use are worse than other. Some of the prospecting companies have also reopened access into some of those areas, using roads that have been closed for many years and were recovering. This opens up access for motorized use, which can lead to increased traffic into areas that were closed off for that type of recreation. Instead of reopening access into some of those areas, the industry should focus on taking the roads out after they leave:

> *So, if there is a place where it's a pristine wilderness not very far, take the damn road out so you still have to ride a horse or walk up there… So, you can't go up there with a four by four and rip around and be an idiot and leave a bunch of garbage" (Barbara).*

When it comes to rules and regulations regarding having control on what is being done and if industry is following the rules, lack of enforcement is a big thing in the MK, according to some of the interviewees. Greg and Harry have both witnessed the good actors in there and the bad actors, more the bad actors though, as they have both taken part in cleaning up a site where the company went bankrupt and left a huge mess, which lead to a very costly cleanup.

> *[T]he industry has changed and the rules haven't. In fact, the rules… I would say you got it way more relaxed, there is not enough guys to enforce it. You go and talk to the CEOs, who's that's their mandate, now and there's a little bit of enforcement with the oil and gas commission, but conservation officers, to my understanding, they are charged with enforcement. And there's two in all of Fort Nelson, and I don't know what there is, there's a handful in Fort St. John, but to look after this whole, you know, the MK, let alone other areas that they are charged with, this is just not feasible… So, the teeth, the claws of the MK Act, nowhere near enough to look after the bad actors in the industry. It's all fine if the company is willing to, you know, really invest in it (Greg).*

In Greg and Harry's mind there is no doubt who are the best in the industry and who are the worst.

> *(Greg) And oil and gas companies are the best of the industries. You turn a logger loose in that country…*
> *(Harry) Yeah!*
> *…you turn a miner loose in that country. Mining is the worst!*
> *(Harry) Absolutely.*
> *(Greg) They have no conscience what so ever.*
> *(Harry) And they got a lot of grandfathered rights…*
> *(Greg) Yep.*
> *…that they don't have to adhere by.*
> *(Harry) So, I mean, we've seen in here, I've seen in Tumbler where there's, right around Tumbler where the coal mines, they're up in the high alpine, scouting for more coal deposits, and they're ripping and tearing up there, where, I mean where you can't even take up a horse, or shouldn't, you know.*

And asked about wind energy, Greg replied: *"Heaven forbid!"* He said there is so much long-term access needed, that would affect nature. Even though the oil and gas industry are the best, in their minds, the MK could be at risk if the economy starts rising for oil and gas.

> *But the big scary one is the oil and gas. It's just gas in this area. But a few things need to line up and get, you know, they need to have a way of marketing the gas, i.e. the pipeline. And look out. The MK is now hanging on an edge of a knife blade if you ask me (Greg).*

Bob and Barbara both know of some bad examples where industry has not done a proper cleanup after shutting down an activity, which sometimes has led to a costly cleanup for other organizations. It would not bother them to have resource activity going on in the MK

"if it was researched!" (Bob), and *"if they take it back to its natural state when they go out" (Barbara).* They would like to see the roads taken out after shutting down an activity so that particular area do not become too accessible.

For many smaller communities, it is a matter of life and death if the natural resource industry is booming or not, as it creates a lot of jobs. Some of the interviewees have watched the economy in some of those communities fluctuate in the same manner as the industry. Diane has watched the Fort Nelson area take dips and rise up again, but at present it is suffering. Chris has noticed this too, for the Fort Nelson area, but also for Fort Liard in the NWT. *"So, now if you talk to anybody from Fort Liard, they will tell you if it wasn't for oil and gas, Fort Liard would not even be there today."*

There are companies that care for nature and are willing to leave the wilderness as pristine as possible and not make roads accessing those areas to start exploration. Andrew told such a story:

> *I have to tell a little industry story. We were there out with the vice president for an oil and gas company. I believe it was Amoco at the time. So, but the guy was standing on, he was standing on a mountain overlooking the Sikanni valley. And this guy stood there, didn't say a word for four or five minutes. And then finally he turned to the rest of his group and he said: We are not gonna mess this up. (Andrew).*

5.5 Summary

Wilderness definitions amongst the interviewees vary from being a place with an intact predator-prey system with a diversity in wildlife, to a place with the possibility to get away and disconnect from civilization. When the interviewees consider themselves in the wilderness differs from being able to experience wilderness on the periphery of the MK versus having to be in the interior. Those who believe they have to be in a certain distance from the highway, or humanmade structures, to consider themselves in the wilderness, are

the more experienced wilderness users. The dominant view was that there needs to be effort put into planning and preparation before heading out to the wilderness as the wilderness experience can be affected if things do not go as planned.

What activity the interviewees are doing in the MK seems to have some impact on their wilderness perception. However, very few of the interviewees were considered to be a single activity user of the MK, and the majority have been doing various type of recreation activities. Whether they are negatively affected by other users in the MK seems to depend on the type of recreation; e.g., those paddling the rivers do not necessary get distracted meeting other groups paddling the rivers, but their experience might be affected meeting river boats. Travelling in a group did not seem to influence the opportunity to experience solitude. Some managed to step away from their group to experience solitude. Others did not look at their group as other people and therefore perceived themselves as being alone. How the interviewees traveled into the MK could also impact their experience. Some got their best experience when they needed to put some effort getting there, like hiking or horsebacking, while others thought of motorized travel as a type of transportation, not necessarily a type of recreation.

When it came to wilderness experience and natural resource development there was little difference amongst the interviewees. Some of them saw benefits from the resource development, and that could be in the form of benefits for their community, but more commonly in the form of better access into the MK, which many of them appreciated. Where the interviewees would come across natural resource development seemed to matter, in the remote areas of the MK vs closer to the highway. Coming across resource development in the early stages of the travel seemed to be more acceptable than later on in their trip. The

majority thought that wilderness and natural resource development were generally incompatible, and resource development should be kept outside the MK, or at least managed well enough to minimize the effect it can have on wilderness perception.

6.0 Discussion

The Muskwa-Kechika Management Area in northeastern British Columbia provides a diversity of wilderness recreation opportunities for users. The purpose of this research was to understand the wilderness perception of MK users and what adds or detracts from their wilderness experience. The MK has informally been referred to as the 'working wilderness' because natural resource activities are allowed in designated areas. It can be a challenge for the management of such a wilderness area to harmonize natural resource development and provide wilderness opportunities for the wilderness users.

I examined both the interviews and the field notes to address my research objectives by identifying themes, both rooted in the objectives and with emergent findings. In the following sections, I discuss the results, organized by these objectives and reflecting back on the existing literature.

6.1 How do MK Users Define Wilderness and What Defines Their Wilderness Perception?

My first two research objectives focused on defining the term wilderness with respect to the MK and identifying the key attributes of its wilderness.

From a contemporary western, settler, wilderness-user perspective, wilderness has been broadly defined as an area where human influences are held to a minimum and where people can enjoy solitude. It is also described as remote, distant from human structures, and large (Aplet et al., 2000; McDonald et al., 2009; Olafsdottir & Runnström, 2011). Indeed, many definitions of wilderness (e.g., US Wilderness system) define, delineate, and monitor wilderness quality based on four prime characteristics: solitude, remoteness, naturalness, and undeveloped (see table 1 in section 2.2.2 for full details).

The interviewees had varied definitions of wilderness and what they find important for a wilderness area to have. These definitions extend from being remote to being in one's backyard. Roads and their acceptability were frequently mentioned. To many, wilderness should be unroaded, have a variety of wildlife, offer recreation opportunities, and be remote. Many thought that no industry should be allowed in a wilderness area. Wilderness and the MK were often mentioned together; the MK was thought to be a prime wilderness area because of its limited accessibility, size, abundance in wildlife, and wilderness opportunities.

At a broad level, I found that the MK users I interviewed, who included a wider and more diverse set of use/activity types than typified in most wilderness-use literature, identified attributes fairly commonly associated with common characteristics of wilderness (see figure 12 for attributes frequently mentioned by the interviewees). However, the uniqueness of the working wilderness of the MK, the diversity of MK users, and the qualitative nature of my methodology meant that these characteristics and attributes

Figure 12. Wordmap of wilderness attributes frequently identified in this research.

mentioned in current literature were nuanced. That is, the meaning derived from defining the important attributes in their own words identified some dimensions not frequently seen in the literature (see table 6).

Table 6.
Differences in attributes identified in this research compared to previous research.

Quality of wilderness	Attributes from previous research	Attributes mentioned in this research
Solitude	No commercial recreation	
	No human presence	
	Not seeing other people	Same type of users
	Opportunity for solitude	With 'my group' of people
	Sense of freedom	The need to be solo
	No outside sounds (e.g. motorized)	
Remoteness	Difficult place to access	Self-reliance
	Remote from cities or towns	Along the highway
	A place without motorized travel	
	Remoteness	
	Expectation of rescue	
	Feeling of being far from civilization	Beyond the cell phone
Naturalness	No evidence of non-native species (plants, animals)	
	Large size (takes 2 days to walk across)	Type of transportation matters
	Lack of infrastructure	Cabins are part of nature
	Naturalness	The feeling of being first
	Concerns of ecological impacts	
	Opportunity for wildlife sightings	
Undeveloped	Opportunity for off-trail travel	
	No obvious campsites at destination	
	Getting feet wet crossing creeks and streams	
	A place without maintained huts/shelters	Cabins are part of nature
	Little signs of natural resource development	On the periphery or in the interior matters
	No evidence of human impact	

Solitude

As in other studies of wilderness, solitude (or its surrogates) was the wilderness attribute interviewees mentioned most often when discussing the wilderness experience in the MK. Very few had an explanation for solitude that relied on being on a solo trip or being alone. Consistent with the literature (Bosangit et al., 2004) it was more common that solitude could be experienced with a group of people, as fellow travelers were not considered as

'other people', whether one was doing hiking, floating or motorized activity. When it came to opportunities to experience solitude, and what circumstances or situations could possibly hinder the interviewees from getting that experience, perceived crowding and tolerance for encountering other users were identified as having negative impacts. Where the encounter takes place is a factor though, as seeing few other users at the beginning of a trip, or on the periphery, does not have as big of an impact on the wilderness experience. However, if encounters happen in the interior, where expectations for encounters with many others are not expected, it is problematic. This too is consistent with literature (Martin et al., 1989; Stankey, 1971) and similar to results from Hall´s (2001) study on hikers' perspectives on solitude and wilderness where number of encounters affected the wilderness experience depending on if the encounter happens all at once (more acceptable) or one after another. What does matter, however, is encountering someone that is not doing the same type of activity, for instance if a group of floaters encounters a river boat (or boats) can have a negative impact on the wilderness experience, which was similar to other studies (Adelman, Heberlein, & Bonnicksen, 1982; Vittersø, Chipeniuk, Skår, & Vistad, 2004).

Remoteness

Given its enormous size, the MK provides opportunities for users to feel remote, especially in the backcountry. Most of the MK is fairly inaccessible unless you travel by horses or motorized travel; and if an accident occurs, interviewees expect to wait a long time for rescue to arrive. Motorized travel is allowed in limited locations via designated ATV routes, but these do not give access deep into the interior. The rivers give access into some of the remote areas (by jet boats, canoes, kayaks). In winter the area is covered in snow which provides good access on snowmobiles although steep mountain passes remain a barrier even

for most snowmobiles to penetrate the interior of the MK. It is possible, however, for non-motorized users recreating in more interior areas to be disturbed by motorized use, which can take away from the remote feeling.

In current literature, roads, or more specifically lack of roads, give wilderness areas more value and impact the measurement of remoteness where an area is assigned a specific value depending on the distance from roads (or other man-made structures) (Aplet et al., 2000). Certain wilderness areas are so remote that the primary access is by air, and no motorized activities can therefore happen there, like in the Gates of the Arctic National Park and Reserve in Alaska (Glaspell et al., 2003). The MK is quite unique when it comes to accessibility and the number of possible recreation opportunities, and that can result in conflicts between users, for example if more roads should be added or if they should be taken out. ATV access into the MK is predominantly from the northeastern portion of the area, along the Alaska Highway, with some also in the southeast. Those interviewees who were in favor of increased access had two things in mind when discussing the benefits of it: greater opportunities to explore the MK; and simpler logistics for certain types of recreation, such as river floats, as ATVs could be used to transport both users and gear to the starting point of a trip. Those who were opposed to increased access, or would like to see less motorized access, felt that some of the trails were so heavily impacted that it would possibly decrease the wilderness value of the MK. It is fairly common to hear both sides when it comes to access into wilderness areas (Hendee & Dawson, 2001). Unlike the Gates of the Arctic, the MK has both a backcountry and front-country component, where motorized access, by designated ATV trails and the Alaska Highway, along the periphery provides certain recreation opportunities and then the primary access to the interior is by air. It can be a challenge for

management to achieve the balance between those two opinions, roads can be difficult to remove and restore, and experienced users know of current access and fight against its loss. Given the size and remoteness of the area, it can also be a significant challenge to enforce current rules and regulation so motorized users do not go off trail causing damage to the fragile land they are on.

One of the primary motives mentioned for visiting the MK was to get to an area where one is disconnected from the outside world. Although part of the highway within the MK does not have cell service, getting into the MK whether by hiking, horsebacking or snowmobiling, and having zero cell service made many of the interviewees experience peace and quiet and have the feeling of being so remote that communication to the outside world was not possible, unless with emergency devices. One of the interviewees called this the 'wilderness beyond cell phone'. I believe this is an important wilderness attribute and worth maintaining because it is something that appeals to many of the users of the MK. It might also preserve the wilderness values of the area, as increasing use of social media by visitors to certain wilderness areas has put those same areas at risk of losing their values (Hendee & Dawson, 2001; Lepp, 2014; Simmonds et al., 2018).

Because of the size of the MK and the fact that rescue can be hours away if an accident happens, the interviewees who frequently travel into the MK put a lot of effort into planning and being prepared, whether in summer or winter or by motorized or non-motorized use. In my research, putting effort into planning and being prepared for the unexpected to happen was mentioned quite often and is possibly related to the MK's remoteness. While risk in adventure recreation is frequently discussed, it is not commonly identified as a wilderness attribute in the wilderness definition literature. This is surprising because it certainly can

have a big impact on the user's perception of safety and security, especially if transportation is non-motorized. By looking at adventure recreation opportunities, such as mountaineering, backcountry skiing, and rock climbing, to name a few, risk and danger are something participants in those types of recreation are looking to experience. Wilderness recreationists might expect risk and danger on a wilderness trip and try to plan ahead and be prepared, especially when an adventure recreationist is deliberately seeking to experience risk and danger (Ewert & Hollenhorst, 1997). Given the size of the MK, the very limited cell service, and the fact that trips in the backcountry usually take days, modern technology such as cell phones and GPS devices are of limited use. Thus, the emphasis for experienced users of the MK is on planning and preparation before the trip. Consistent with McAvoy and Dustin (1981), being self-reliant in the wilderness gave some of the interviewees more confidence and they were more ready to take on another wilderness trip. Modern technology can take away "the fundamental elements that have traditionally defined a wilderness experience" (Martin & Pope, 2012, p. 119), and possibly influence users perception of risk-related decisions that can impact their wilderness experience (Hendee & Dawson, 2001; Martin & Pope, 2012).

One of the common attributes of remoteness (or definitions) mentioned in current literature is that an area needs to be in a certain distance from cities or towns, so users can get the experience of being remote. The majority of the interviewees feel the same, but a few of them felt that they can get the remote feeling along, or even on, the highway (within the MK border). The distance between highway services and being able to park in one of the pullouts and take a short hike made them feel remote.

Naturalness

When it comes to feelings of naturalness, the size of the area, lack of evidence of infrastructure, and opportunities for wildlife sightings are common attributes in current literature that can impact the wilderness experience of wilderness users (Lachapelle et al., 2005). When the size of a wilderness area is being discussed or whether it is classified as providing the feeling of naturalness, common parlance says wilderness should take at least two days to cross on the ground (Shultis, 1999). Crossing the MK from the ground takes a lot more than two days, but the type of travel can affect feelings of naturalness. Someone travelling into the interior of the MK can be there in less than two hours by an airplane, compared to up to three weeks travel on horses. Again, the effort put into getting there impacts the wilderness experience in a way that the easier the transportation is, the less one could feel remote knowing it is only about two hours back to civilization.

Some combinations of wilderness attributes lead to specific wilderness experiences. Accessing one of the remote areas of the MK where there is limited to no infrastructure, provided the feeling for the interviewees as if they were the first person in that particular place or area. For some interviewees who were familiar with the MK and its history prior to designation, coming across cabins did not affect their wilderness experience as they felt that the presence of outfitters and (trappers) were a part of the natural environment. Likewise, while some interviewees identified the feeling of being ‘first’ to an area, they recognized the artificial construct that this entailed and that Indigenous peoples and early settlers had traveled all over the land. However, the lack of an obvious footprint by previous users contributed to this ‘first’ feeling. While there are complex narratives of perceptions of wilderness as ‘unpeopled’ and the erasure of people from wilderness areas (Crane, 2012;

Nelson & Callicott, 2008), the reality is that the MK wilderness users often embody these ideas even as they recognize their inherent fallacies.

Seeing wildlife while spending time in the MK often enhanced the interviewees' wilderness experience, assuring them that they were travelling in the wilderness. What may be unique about the MK and mentioned by many of the interviewees, is not just the abundance in wildlife but also the intact nature of the predator-prey system, a term used unprompted by several interviewees. The MK provides the opportunity for users to see grizzly bears and wolves, as well as ungulates like moose, caribou, and elk. This was the case on my horseback trip when the group spotted wolves, grizzly bears, and elk on the same day, and according to my fellow participants (and myself), that was the greatest experience of this two-week trip through the MK. The importance of seeing wildlife as a dimension of the wilderness experience is well documented (Farber & Hall, 2007). The nuanced dimension of the MK wilderness experience was that interviewees named and reflected upon the fact that the special element was the 'predator-prey system' and its 'intactness'. This suggests both an ecologically sophisticated visitor base and the recognition that the MK wilderness is more than just a collection of wild animals but that it is a functioning collection. Troubling was the anecdotal, but common, observation that wildlife abundance was declining in the MK, raising concerns about the long-term sustainability of the wilderness environment.

Undeveloped

Part of perceiving an area as undeveloped is the opportunity to hike off-trail, camp where there are no obvious campsites, and travel without seeing evidence of resource development. When in the backcountry of the MK, there are usually no designated campsites and users can choose where they put up a tent. There might be signs of previous users, like

fire rings, but for some of the interviewees this does not impact their wilderness experience. Rather, they appreciate the effort of another wilderness user there before who made the fire ring, so they use the same one. Negative perceptions resulted instead when they encountered a proliferation, rather than concentration, of impacts such as fire rings around one campsite.

Although rare, evidence of natural resource development can be seen in some parts of the MK, most commonly from past development. Whether or not encountering resource development impacts the wilderness experience of the interviewees depends primarily on whether the encounter happens on the periphery of the MK or in the interior; and if it happens at the beginning/end of a trip or midway through the trip. This is discussed in more detail in section 6.3.

6.2 Does Diversity Exist Amongst the MK Users?

Clearly for such a large area that provides a diversity of opportunities for users I expected to find a wide range of wilderness opportunities and experiences. I was interested in specifically exploring what this diversity looked like and what user variables or wilderness attributes may have contributed to this. Much of existing literature differentiates wilderness users based on mode of access or type of activity (Adelman et al., 1982; Miller, Vaske, Squires, Olson, & Roberts, 2017). Richer descriptions have differentiated wilderness users based on their perception of specific attributes of wilderness, such as remoteness and solitude by examining a continuum of wilderness (Carver et al., 2002).

What this sliding scale of the nature of wilderness means is that managing wilderness experiences based on access/transportation will be incomplete. Likewise, so will managing based on activities. What it does mean is that within each activity/access form is embedded a range of wilderness users that needs to be accommodated. For example, the ATV user who

accesses more remote sites and then turns off the machine to enjoy solitude differs from the user for which the machine is critical to the experience. This might mean a necessary step in planning that thinks about access/activities at the center and provides for a full range of experiences on a wilderness continuum surrounding each of these. It also implies communicating to visitors what kinds of conditions they might encounter in each area.

The MK allows for more types of activity/access than most other studied wilderness areas. Most of the interviewees with repeat visits to the MK have done multiple activities there. This reflects on not just a diversity amongst user groups, but also that the same person could experience diversity in perception of wilderness, depending on the type of activity one is doing. By looking at where the interviewees have their wilderness experience (see figure 13) it seems clear that those with little to no experience of the MK can experience attributes such as solitude or remoteness on or along the highway (or on the periphery). The majority of those who prefer non-motorized activity in the MK may feel they need to be in the interior to get the wilderness experience. It appears that those who have done both motorized and non-motorized activity in the MK have a preference to be away from the highway to feel they are in the wilderness.

When positioning the interviewees on the Wilderness Purism Scale, I used the attributes shown in section 4.4.4 and gave each interviewee a score from 1-5 for each attribute. I developed a classification scheme based on looking for natural breaks in the data and somewhat equal intervals when deciding the score range for each class of the purism

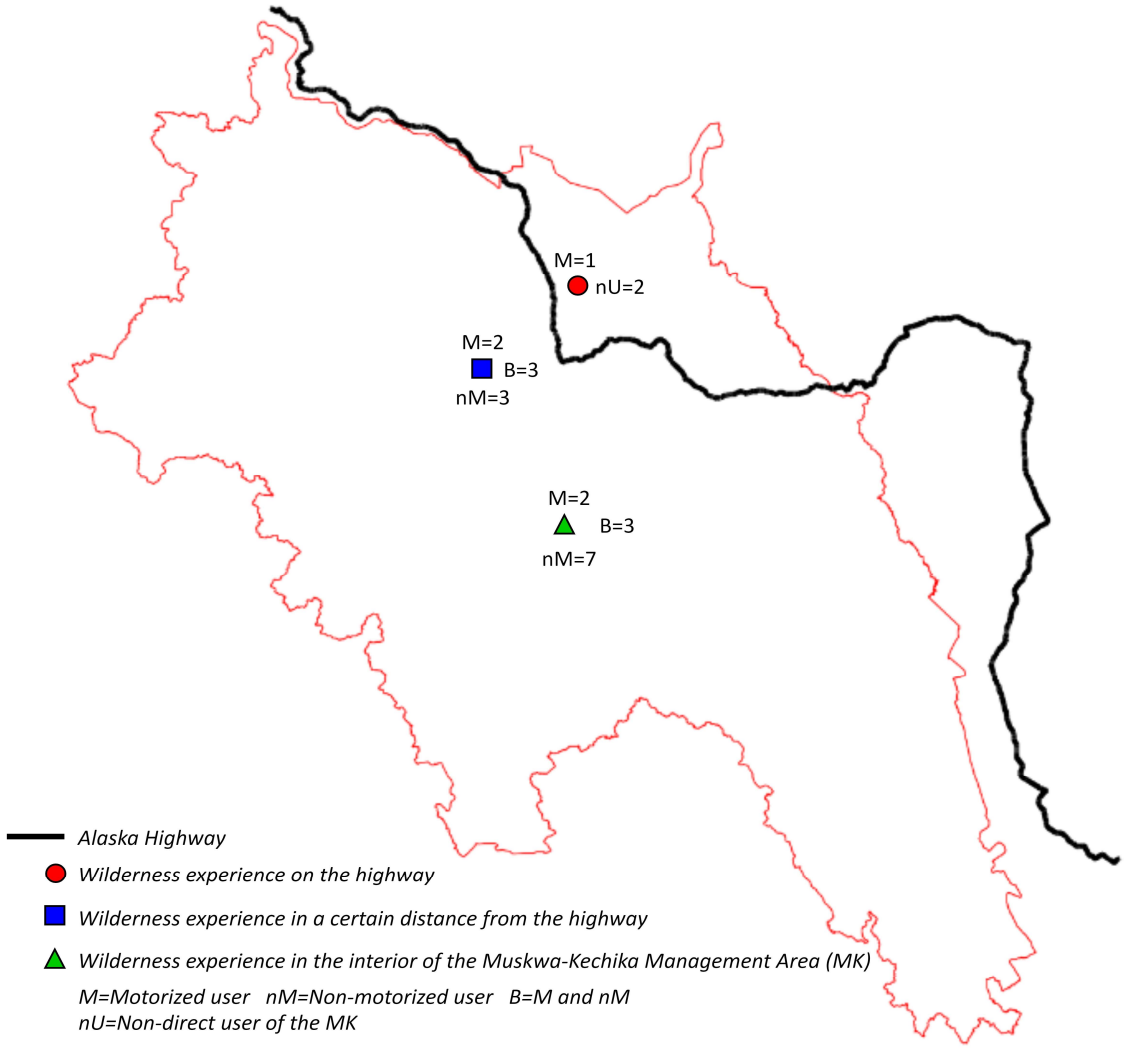

Figure 13. Map showing where interviewees feel they can get the wilderness experience in the Muskwa-Kechika Management Area (MK), classified by user groups.

scale. The caveat is that in the sampling process for my study I did not purposely attempt to sample users who might be classified into each class of the purism scale. Thus, no one in my study was classified as a non-purist (Figure 14). The scores ranged from being as low as 53 and as high as 74 where the highest score possible was 90 (18 attributes multiplied by 5 points).

Of the 18 attributes, Remoteness got the highest score (mean 4.4), followed by Evidence of wildlife (4.32) and Solitude (4.12). That resonates with what the interviewees mentioned as one of the main motivations for visiting the MK, but it contradicts results of a

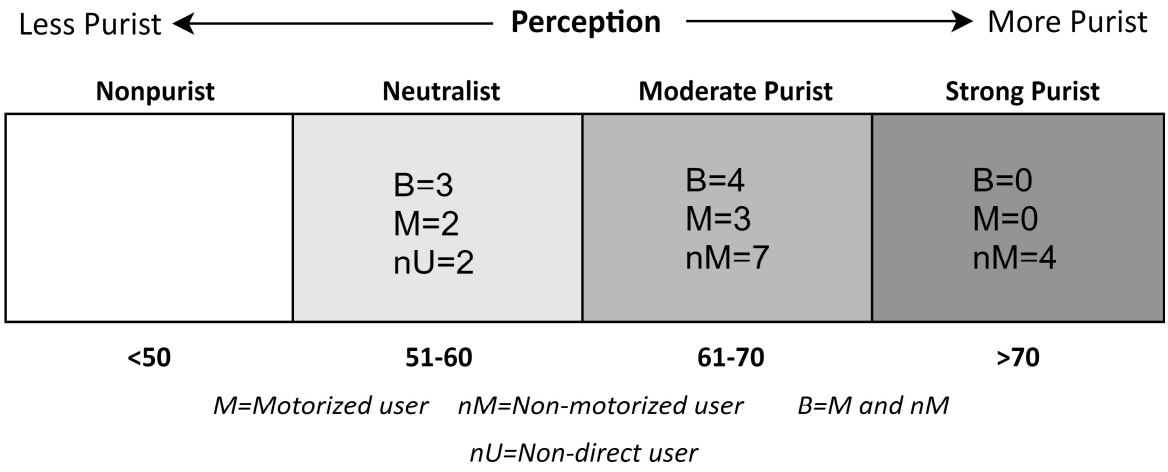

Figure 14. Interviewees on the Wilderness Purism Scale based on their wilderness purism score.

study conducted by Higham (1998) in New Zealand where (extreme) remoteness was not considered very important to wilderness experience, and a quarter of the strong purist users in that study did not hold a strong perception for solitude. The attributes that got the lowest mean in the MK were Limited access/difficult to access (mean 2.88), Motorized access (2.92), and Maintained trails (3.04). This might not come as a total surprise as nearly half of the interviewees are classified as non-motorized users and fall into being either moderate purists or strong purists on the Wilderness Purism Scale. This is similar to results of a study conducted by Flanagan and Anderson (2008) amongst recreational users of San Juan National Forest in Colorado (which offers opportunities for both motorized and non-motorized recreation), where users classified as either neutralists or moderate purists found motorized recreation and maintained trails (or roads) undesirable within the area. Accessibility into the MK was one of the main themes (theme 9) where some of the interviewees raised concerns about increased traffic into the area resulting in negative

impacts on the wilderness quality, while others would like to see the area opened up to more people who appreciate what the MK has to offer. Considering how many of the interviewees are in to non-motorized activity within the MK, it might perhaps be surprising that accessibility, or limited access, did not score higher and be something that adds to the experience. On the other hand, a score of 2.88 is very close to being neutral on the Likert scale and because of that maybe something that is not too much of a worry.

I am not presenting the individual scores here but pulling out one interviewee that came as a surprise to me - Morgan, with the lowest score of 53. By looking into more detail at Morgan's activity within the MK, he floats the rivers, hikes, and does quading, where floating is his favorite. As such, one would think he would more likely be a moderate purist than a neutralist, but it is the scores for the access part and the resource development that bring his total score down. Morgan is also one of the interviewees who does not necessarily think of motorized activity as a pleasureful recreation but rather as a transportation method. The wilderness experience he is looking for when recreating in the MK depends on whether he is doing a motorized activity, such as quading, or a non-motorized activity, such as floating the rivers.

Differences on a wilderness type continuum are not as clearly articulated as in other studies. People are complex – the scale of the MK is so large that people often need to use methods of access that are potentially inconsistent with their typical activity profile, just to get to where they are going to recreate. Much of the research on wilderness users is focused on studying one activity group (e.g., hikers) vs another group (e.g., ATV). Methods used to study these differences have primarily been surveys (Barr & Kliskey, 2014; Palso & Graefe, 2008), but also on-site interviews (Fairweather & Swaffield, 2001; Glaspell et al., 2003).

These methods potentially limit discovery of whether other users of wilderness are equally diverse. This suggests an opportunity for additional research.

6.3 How Does Encountering Natural Resource Development Affect the Wilderness Experience?

The history behind natural resource development within the MK reaches further back than its establishment in 1998. Many of the past industrial sites had been closed down before the area was designated. After the MK was legislated, about 27% of its 6.4 million hectares was designated as protected areas where no resource development is allowed. Nevertheless, the area has been referred to as the 'working wilderness' as in other parts of the MK some type of future resource development is allowed, (e.g., oil, gas, mining, forestry, and wind power).

The nature of the MK is quite unique as there might be evidence of past resource development[2] (e.g., abandoned mine or seismic line) in areas where users also have opportunities for wilderness experience. Some of these sites are well known amongst MK users, especially with those who frequently visit the area. Because of these developments, access was provided, especially for motorized activity. Those who are visiting the MK for their first time are perhaps not expecting to encounter any resource development there and doing so could detract from their wilderness experience. The more experienced ones either know how to avoid these areas or it does not bother them that much encountering it, possibly because most of these past sites are not that remote.

Where the interviewees encounter resource development matters and it seems to have less significant effects if that happens on the periphery. Within the MK, natural resources are

[2] (Winter Hawk Studios, 2018)

not equally distributed and thus resource developers can not always make a choice of only concentrating development on the periphery. Even if they could concentrate on the periphery it would likely result in a significant change to the highway visitors and the overall image of the MK. This could be problematic for certain types of users, like those who do daytrips or like to recreate close to the highway, as they are not likely to recreate beyond the periphery. They would therefore be more likely to encounter resource development. Because the MK is so big there are geographic regions of use (e.g., access via the Fox/Obo watersheds vs Toad River), so care needs to be taken not to trade one area off against another by concentrating impacts all in one geographic area.

There is a range of tolerance amongst the interviewees for natural resource development within the MK (figure 15). While there were no active resource development sites (oil, gas, mining) within the MK border at the time this research was conducted, encountering signs of past development undoubtedly affects perception. In addition to direct modifications and structures in the future, there may be increased traffic into the area and other types of impacts like noise and light. Some of the interviewees thought that wilderness and natural resource development were incompatible, and they would not like to see any type of resource development happen within the MK. Encountering development would impact their wilderness experience by for example, taking away feelings of remoteness. It is difficult to draw concrete conclusions of whether user type (motorized or a non-motorized user) is

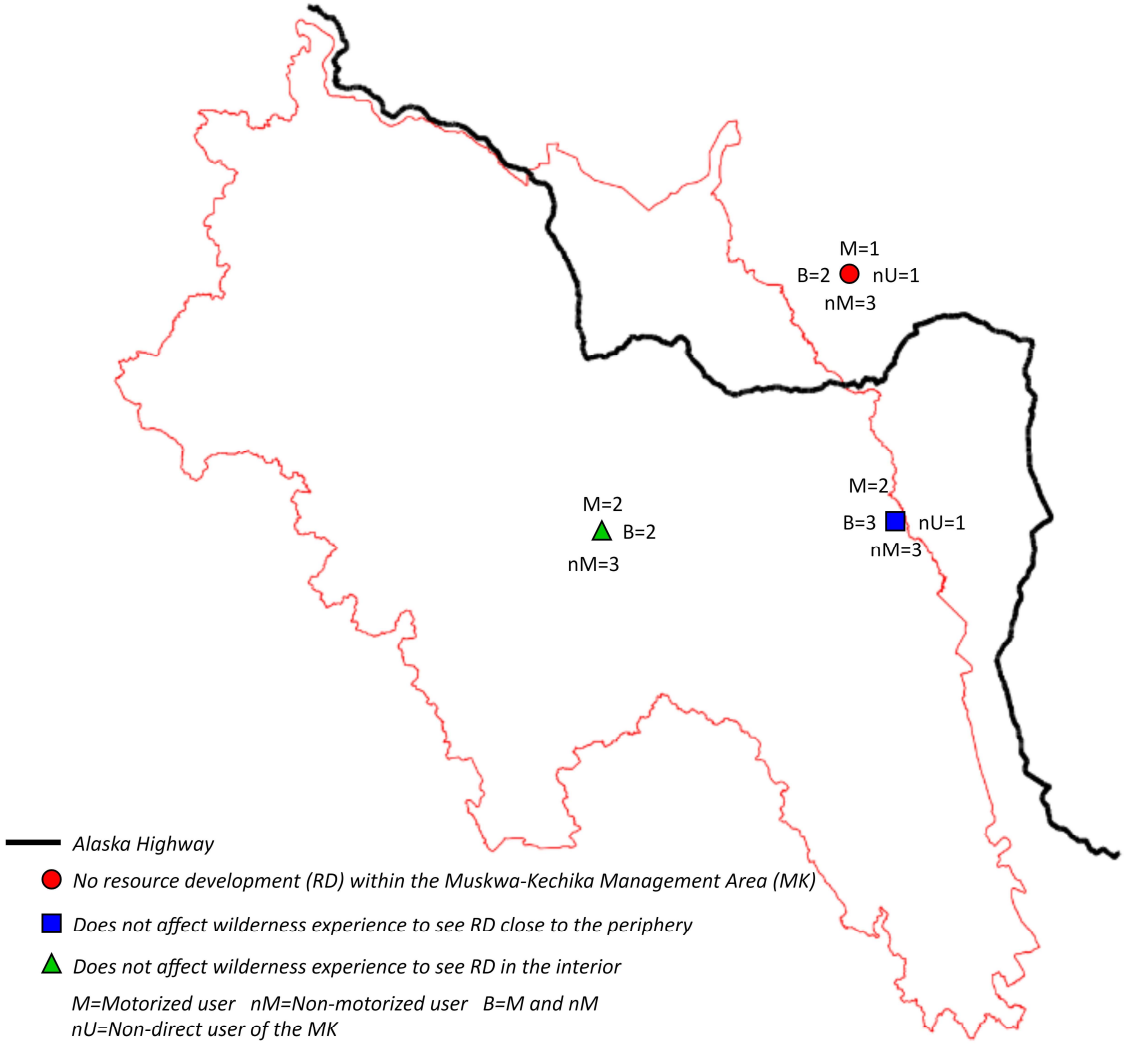

*Figure 15.*Tolerance for encountering resource development (RD) in the Muskwa-Kechika Management Area (MK), classified by user groups.

associated with tolerance for encountering resource development. Regardless of whether development happens on the periphery or in the interior of the MK, there does not seem to be a clear relationship with user type (e.g., M, nM, B; see figure 15). There are approximately the same number of interviewees in every category that have a zero tolerance for encountering resource development within the MK border. Other research (see for example Jackson, 1987, and Thapa & Graefe, 2003) reported that those whose main activity was

'nature-appreciative' (e.g., birdwatching/hiking) were less tolerant of development than those in the 'consumptive' or 'motorized' activity groups. Although I did not classify people by main activity, as it would have been difficult to do so given the repeat nature of visitors and the mixed nature of their experiences, I think that while there are some common elements to those other studies, the findings for the MK are less clear in this regard.

Most of the interviewees who indicated that they would tolerate encountering resource development, would do so if it happened at the beginning or at the end of a trip. Another view was that coming across industrial sites occasionally on a 300 km long floating trip, maybe once every 100 km, is acceptable. For others, coming across industrial sites halfway in, or after being dropped off by a plane in the interior would definitely have a negative impact on their wilderness experience.

Some interviewees that recognized the economic value of resource development were more concerned for their communities' economic well-being than the impacts on their own wilderness experience. Those views came from folks who were living in the Fort Nelson area and some either had, or were working, in the resource industry. As illustrated in figure 16, it appears that those who live in close proximity to the MK have a higher tolerance for encountering resource development, either on the periphery of the MK or in the interior. One of the explanations might be that some users appreciate the access into the MK which has mostly been created by industry, whether or not someone else has maintained that access since or it has been remediated. This access mostly benefits motorized users and many of those who do motorized activities would like to see more access opened up rather than see some of it closed down. More access would for instance benefit users who do a combination of transportation, like those who float the rivers. It would make it easier to transfer their gear

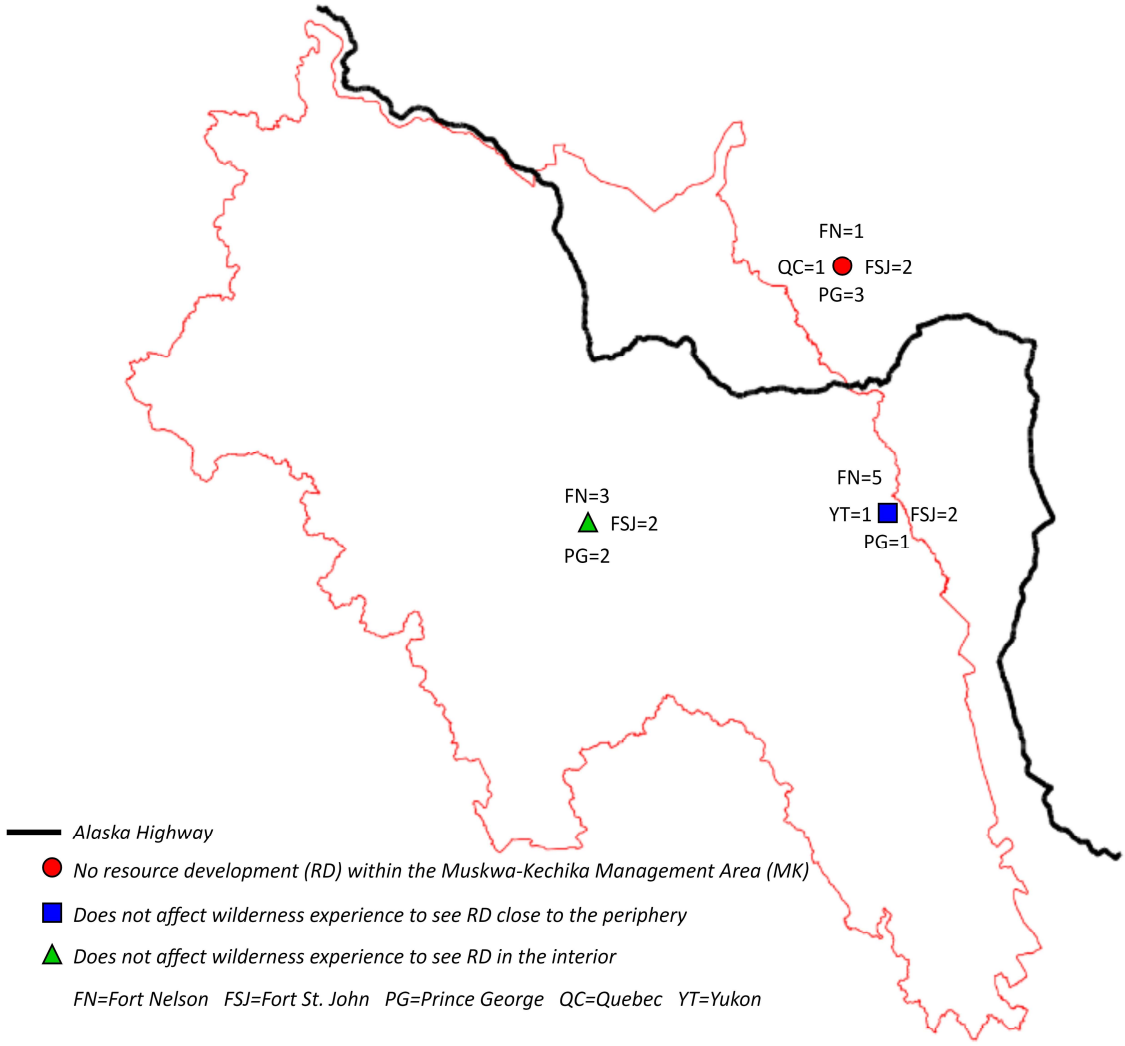

Figure 16. Tolerance for resource development (RD) in the Muskwa-Kechika Management Area (MK), by residence.

to the starting point which would make logistics for them simpler. One other reason, an interesting one, was that it would divert the motorized traffic on to more trails, which would make current trails less heavily impacted. For this same reason, some would like to see some of the current trails closed off, especially old access roads that are in the process of being remediated.

Much of what has been mentioned above is consistent with research conducted in Iceland in 2011 (Sæþórsdóttir & Saarinen, 2015) where semi-structured interviews were conducted with visitors (domestic and international) to elicit tourists' perspectives on wilderness and power production. The majority of the interviewees would not like to see any hydropower plants in the Highlands (more than the current ones) as it would have a big impact on their wilderness experience. Those who frequently visit the Highlands know of areas where they can avoid signs of hydropower plants and be more secluded. Interviewees living in communities in proximity to the Highlands looked at the benefits for their communities, especially with respect to job creation. This is in contrast with research conducted in British Columbia (Lutz et al., 1999) where attitudes toward wilderness perceptions were studied between urban and rural residents of the province. In that study, rural residents thought of areas in close proximity to them that had evidence of resource developments as non-wilderness, compared to urban residents whose perspectives were the opposite.

One of the reasons mentioned regarding the negative impacts of the evidence of past resource development in the MK was the lack of proper cleanup on these sites when they were closed down. This includes not only in removing structures but also remediating access roads and the natural environment on the site. Even though some users tolerate encountering past resource development, site restoration and remediation on some of the old industry sites was important. The same goes for possibly allowing new resource development in the MK; these users felt it important that the industry tries to make the resource development sites look as natural as possible and keep them clean.

7.0 Recommendations and Conclusions

7.1 Recommendations for Management

This research helped to identify important dimensions of the wilderness perception of MK users which can provide important insights to the MK Advisory Board, for example, in their continued work in defining wilderness and wilderness characteristics.

Actively Plan for Wilderness Recreation

Overarching many of the findings of this study is the importance of actively planning and managing for wilderness recreation values in the MK. Wilderness recreation in the MK has developed largely organically with the exception of the designation of motorized recreation routes and the allocation of commercial backcountry recreation permits for guided activities. Apart from these things, little is known or planned for from the recreation perspective. An older draft recreation plan (Rutledge & Davis, 2005) was developed based on a limited, and now significantly out-of-date, information base and was more of a reactive plan of activities that were there rather than a forward-looking plan. The draft plan is now 14 years old and has not been implemented and no monitoring undertaken (Garrity, 2013). The MK is, however, highly valued for wilderness recreation by those who use it and for many others who have it on their "bucket" list as a place to either visit in the future or value just because it exists. Planning for wilderness recreation in the MK should be afforded the same consideration as planning for any other resource development activity. Plans should be proactive in nature and not reactively recognize only the activities that are already in place. Otherwise as use levels grow (something we assume is happening but have no evidence except anecdotes as support) the experience is likely to shift and degrade. Users are looking for different wilderness settings based on their activity, and to make their wilderness

experience enjoyable it is important to keep their experiences on level with their expectations.

Use Levels and Visitor Tracking

As noted earlier, there is limited knowledge of visitor use numbers in the MK, perhaps confounded by the fact that many of those who visit the area go on their own (non-guided) and are frequent users. Interviewees did notice, however, that there were increased levels of use in some areas and that in some locations or at certain times they were experiencing negative impacts from other users either from crowding or from visitor behaviours. To date there is limited to no tracking of visitor numbers (except at related sites such as Liard Hot Springs). Collecting baseline information and monitoring changes to visitor use (like the recreation plan suggested) – at least at some of the primary access points would be beneficial for management planning and decision making.

User Codes of Ethics/Responsibilities

In addition to use levels, interviewees mentioned instances where some visitors were negatively impacting sites and the environment. Some consideration of a MK code of ethics/behaviour or encouraging responsible behaviours through mechanisms such as an adopt-a-site program similar to BC's Recreation Sites and Trails approach (Province of British Columbia, 2018) may be worthwhile.

Tracking Changes in Wildlife Abundance

One of the highlights mentioned by many of the interviewees was seeing wildlife on their trips in the MK. Those who are frequent users of the area have noticed changes in wildlife in the MK and are seeing less wildlife. Assessments of wildlife abundance and

health combining scientific and local knowledge may help identify problems before they accelerate.

Actively Plan for the Interplay of Resource Development on Wilderness Experiences

Although some wilderness users do not want to encounter resource development, others would be tolerant of activities depending on where and when they happen, and how sites are remediated. Planning for resource development should consider that encountering these developments in the interior is generally not preferred. In addition, there are patterns of use for visitors with some frequenting the northern sectors (e.g., Toad River and north of Muncho Lake), others focusing on Sikanni, and still others in other regions (e.g., Mackenzie access into the Fox/Obo areas). Providing a range of wilderness experience opportunities within each of these regions is important. Regardless, many visitors would not expect to encounter resource development in the MK and thus there should be active communication with visitors about what activities to expect and where so that they can adjust the location or timing of their wilderness experiences in accordance.

Access Challenges

Like most other areas, access to wilderness opportunities is fraught with trade-offs. Allowing some mechanized assistance (e.g., ATV access to certain points, river boat access, float/fixed wing drop-offs) both for the sake of the activity itself (e.g., enjoying an ATV experience in a backcountry setting) or as a transportation option is probably a necessary reality for such a large and remote area. While some users wanted more motorized access options, these do conflict with other users' experiences and with naturalness and wildlife values and thus allowing more mechanized access should be done only if there is careful

review and consideration of negative impacts. Enforcement of existing access rules and minimizing impacts on other users should become a higher priority.

7.2 Recommendations for Future Research

Front-Country Wilderness Experience

The majority of the users interviewed in this research traveled to the MK using various types of transportation to get there. All but two of the interviewees who have traveled in the MK, planned and prepared their trips on their own (or with their travelling companions). There is less knowledge about the front-country users of the MK (those who travel the highway and do day trips from there). Only one interviewee was classified as a highway user. It is important to identify what these users are expecting to experience on their trips on the periphery, and if their perceptions of the MK wilderness differ in any way from those who do longer trips into the MK, or have done both, traveled on the periphery and in the interior.

Understanding Non-Use Values

The MK is not the exclusive domain of those who use it, however. It is part of the public estate and the values held by non-direct users for this area should be considered. A study of existence values (those who are non-direct users but still value the MK for a wide range of values) for the MK would be worth conducting. This perspective might have a big impact for future public support for the MK and its preservation.

Access, Activity and Repeat Users

Much of the research on wilderness users is focused on studying specific and focused activity groups (e.g., hikers). I suspect that like the MK, wilderness users in other areas are less precisely characterized by activity (particularly repeat users) than is indicated in the

literature. Teasing out the interplay between type of access (e.g., mechanized vs non), type of activity, and activity allegiance over multiple visits on wilderness perceptions would be important.

Resource Development and Wilderness Experiences

As resource development occurs within the MK there is an excellent opportunity to study, in a quasi-experimental way, the interactions and impacts of resource development on the wilderness experience.

7.3 Limitations and Conclusions

7.3.1 Limitations.

The most significant limitation to my study was related to issues associated with sampling MK visitors. Relying on information from others, such as guide outfitters, clubs or organizations, or other users of the MK, may have limited my access to different types of users of the MK.

Although my trip to the MK (see section 4.3) was intended to help ground me in a Canadian understanding of wilderness it is possible that my previous experiences framed how I understood my interviewees' wilderness experiences.

The intent was to conduct all the interviews in person, but five interviews were conducted through Skype (three due to distance, and two others due to time availability). One interviewee did not give consent for the interview to be recorded, which limited the information from that interview.

7.3.2 Conclusions.

The fact that the MK claims to be a working wilderness, where opportunities for resource development and use, and wilderness experience are in the same area, makes the

MK quite unique when looking at other wilderness areas in North America, or even in the world. The industry has created much of the limited access into the MK, which has given especially motorized users, greater opportunities to explore the area. Much of the trail system on the periphery is multiple activity use, for both motorized and non-motorized users, where not many other wilderness areas allow for both. This results in diversity amongst the MK users.

Previous research about the MK wilderness did not directly include MK users, rather the focus has been on mapping where within the MK there are opportunities to perceive certain wilderness attributes, like solitude (Anderson, 2018). My research focused on the social perception of wilderness amongst users of the MK, where I conducted and analyzed in-depth, semi-structured interviews. The results indicate that users think of the MK as a prime wilderness area where solitude is one of the key wilderness attributes they are looking to experience. One of their biggest motivations is to go there and be able to disconnect from the outside world and experience peace and quiet. Wilderness definitions vary from being achievable on the periphery vs interior. There is great diversity amongst the MK users with many of the interviewees I talked to doing multiple activities including both motorized and non-motorized activities. This could result in varying wilderness perceptions within the same person depending on the specific experience. Where interviewees encounter resource development is critical to the wilderness experience. Encountering the development on the periphery or in the beginning of a trip is more acceptable.

Information from this project can be used by organizations such as the MK Advisory Board to help identify how specific resource development proposals might impact various wilderness experiences.

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Appendix I: Interview Questions

For users of the MK

1. I would like to start by learning a bit about you?

-Your age, family status, where you're from and where you grew up, where you live, your occupation, previous wilderness experiences other interests…

2. What is wilderness to you?

3. In your opinion, what attributes or qualities make a wilderness experience somehow different from other outdoor experiences?

4. What do you feel is acceptable in the wilderness?

5. How would you describe wilderness in general? What about the MK – how does it compare?

6. When was the last time you visited the MK?

-Was that your first time?

-How long was that trip?

-What was the purpose of your visit?

-Can you tell me what area, or areas, you visited?

-Or can you point it out on the map, just roughly?

7. What intrigued you to visit the MK?

-Was it your previous visits to other wilderness areas?

-Your desire of experience the wilderness?

-Your interest in outdoor activities?

-Your interest in seeing the wildlife?

-Your interest in scenic view of a landscape?

-Going with a friend?

8. How did you travel into the MK?

(if by horses – primarily a horseback user?)

9. Did you have any expectations of what you might experience in the MK before going there?

-In terms of the wildlife, experience wilderness, recreational opportunities, landscape, encountering other people, discover your own strengths or weaknesses, or even weather?

10. You may know that the M-KMA is an area managed for a wide range of uses from wildlife and wilderness values to natural resource values...although some parts of the M-KMA are protected from resource development in provincial parks while other areas are open to resource development that considers wildlife values and wilderness values. An advisory board and government are working to identify when and what kinds of development might be permitted (and where) in the MK…I'd like to talk to you about that for a bit:

-Did you see any signs of past or current resource development use in the MK? (where, when, get them to describe the signs)

-If so how did it affect your experience (sound, sight, smell)

...positive/negative…what way.

-For you, if you encountered signs of x activity (do them one at a time – oil, gas, wind energy, mining, forestry) on your experience – would it affect your experience? Does it matter, when, where etc?

11. If you have been to the MK more than once, what changes (if any) have you seen from your last visit? Or your first visit (if multiple times)?

12. If you picture yourself in the MK at your last visit, what wilderness attributes can you think of that either added to or distracted from your experience there?

13. Would you say you have experienced any of the following wilderness attributes in the MK (if not mentioned before)

-Solitude – Remoteness - Naturalness – Undeveloped - Noise

-What other wilderness attributes come to your mind by thinking of the MK?

-What do you value the most about the MK?

-Can you identify a specific area or areas where you experienced a certain attribute? In words and/or on a map.

Is there anything else you would like to share?

Thank you!

For non-direct users of the MK

1. I would like to start by learning a bit about you?
2. What is wilderness to you?
3. In your opinion, what attributes or qualities make a wilderness experience somehow different from other outdoor experiences?
4. When was the last time you went on a wilderness trip? And how did you travel?
5. Is there something special that makes you want to go on a wilderness trip?
6. Do you know of the Muskwa-Kechika Management Area? And have you gone into the area?
7. How would you say what you seen of the MK compare to your description of wilderness?
8. Do you have any expectations of what you might experience before you go on a wilderness trip?
9. What do you feel is acceptable in the wilderness?
10. What about natural resource development use?
11. What about the access into the wilderness, in general? More accessible, less accessible?
12. On your last trip along the Alaska Highway, what wilderness attributes can you think of that either added to or detracted from your experience there?
13. Would you say you have experienced any of the following wilderness attributes on your trip (if not mentioned before)

    -Solitude – Remoteness - Naturalness – Undeveloped - Noise

    -What other wilderness attributes come to your mind by thinking of the wilderness?

Is there anything else you would like to share with me?

Thank you!

Appendix II: Example of an Email and a Facebook Post Used to Reach out to Users

Email

Hello!

My name is Odinn and I am a grad student at the University of Northern British Columbia (UNBC) in Prince George. I am working on my master´s research and the study area is the Muskwa-Kechika Management Area (M-KMA). I see on your webpage that the club has a cabin at Redfern, which is inside the M-KMA.

I am studying wilderness perceptions among visitors in the M-KMA (or the MK) with the title (so far) "Wilderness Perceptions Mapping Among Visitors in the Muskwa-Kechika Management Area."

My main research method is in-depth interviews, and I am trying to get as wide a perspective as possible by interviewing users from as many user groups as possible (hikers, hunters, horseback riders, ATV users, snowmobilers etc.). So far I haven´t been able to talk to someone who recreates in the MK by going in there on a snowmobile. Therefore, I am hoping that I can get in touch with a member of your club that is willing to participate in my research. I would prefer someone who has gone on a trip in there for several days, and it doesn't have to be to the cabin, just inside the M-KMA.

This summer, I was in the MK on a two weeks horseback expedition (with Wayne Sawchuk), and it was spectacular!

I would appreciate your help on this!

My supervisor is Dr. Pam Wright!

The research has been approved by the UNBC´s Research Ethics Board.

From my research proposal:

"The research intent for the interviews is to talk to a wide variety of past MK visitors (in terms of a range of activity types, methods of accessing the area, and locations and/or areas they visit) to understand the widest spectrum of wilderness perceptions. More precisely, I want to know about the nature of their MK wilderness experience and get them to explain what and how various wilderness attributes affect their experience. I want them to identify attributes of wilderness that they think are important to them, and see if there are any patterns of variability in attribute importance. In conducting interviews, I want to get the widest range of attributes of importance."

From the Information Letter:

"This research project is aimed at helping understand the wilderness values of the Muskwa-Kechika and to identify the important aspects of the wilderness experience. This information may be useful in helping to contribute to a growing body of work developing methods to map and measure wilderness attributes with the focus on the social perception of wilderness."

With kind regards,

Odinn Steinsson

MA NRES Candidate

UNBC

Tel. 250-552-6163

Facebook post

Hello folks!

(Admin remove if not allowed)

I´m a grad student at UNBC in Prince George and my research is about wilderness perceptions among visitors to the MK (Muskwa-Kechika Management Area). My criteria is:

-visit the area in the last 5 years or so,

-hikers, hunters, ATV users, jet boat users, snowmobilers, horseback users, river floaters, etc. (any type of users; guided or self-guided tours,)

-rather not people who go in there because of work

-day trips or longer trips, doesn´t matter

My method is based on interviewing the users. If you fall under the criteria, I would appreciate to hear what you have to say about the area, because I sure like it after being there for two weeks on a horseback expedition this summer.

I´m in town now and will be here until Friday afternoon (around 4 pm) and then again on Sunday morning.

I know it´s a short notice, but worth a shot! Please pm me if you´re interested.

Thanks,

Odinn

Appendix III: Information Letter and Consent Form for Interviewees

UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Wilderness Perceptions Mapping Among Visitors in the Muskwa-Kechika Management Area

Information Letter

Date: May 11, 2017

Who is conducting the study?

The research is being conducted by UNBC NRES graduate student Odinn Steinsson supervised by Dr. Pamela Wright. This research will contribute to Odinn's Master's thesis, and will therefore be part of a public document.

Graduate Student Researcher:
Odinn Steinsson
MA NRES Candidate
University of Northern British Columbia
Office 8-239
steinsson@unbc.ca
T. 250-552-6163 (mobile)

Faculty Supervisor:
Pamela A Wright, Ph.D.
Outdoor Recreation and Tourism Management
Ecosystem Science and Management Program
University of Northern British Columbia
Prince George, BC
pwright@unbc.ca
T. 250-960-6353 (office)

Who is funding this study?

The study is being funded in part by the UNBC Muskwa-Kechika Endowment Fund. The funding support provides a research stipend to graduate researcher Odinn Steinsson and in no way directs or restricts the findings of this research.

Why are we doing this study? Why are you being asked to take part?

Thank you for agreeing to participate in an interview regarding my research on the Wilderness perceptions mapping among visitors in the Muskwa-Kechika Management Area. I am very interested in your experiences and your information on this topic can be very helpful in my research.

This research project is aimed at helping understand the wilderness values of the Muskwa-Kechika and to identify the important aspects of the wilderness experience. This information may be useful in helping to contribute to a growing

body of work developing methods to map and measure wilderness attributes with the focus on the social perception of wilderness.

As a user of the MK I would appreciate your thoughts and insights. **This interview should take approximately 60 minutes.**

Research Ethics

Your participation is voluntary and if you do choose to participate, you may stop at any time, at which point, your interview will be discarded.

Anonymity and Confidentiality

With your permission, I would like to record the interview to help with notetaking and to improve the accuracy of the information. I do not need to record any personal identifying information about you and will not be attributing specific comments by name as pseudonyms will be used. However, I cannot guarantee that people will not be able to identify you.

Your individual interview will not be seen, or heard, by anyone but me and my supervisor. After collection, I'll hold on to the original information for two years on a secure computer in my office at UNBC until the data is analyzed and published and then I'll delete each individual interview from the system.

Data Management Plan: All interviews will be digitally recorded (given the consent of the interviewee) using some kind of recording device (e.g. a mobile phone or a voice recorder). After each interview the file will be uploaded to a secure shared folder at UNBC, where the researcher and his supervisor are the only one who can access it. The files will also be kept on researcher´s laptop in a locked folder (same access restrictions). Transcripts will be stored similarly. There might not always be an internet connection where the interviews take place, which is why the laptop will be used to store the files. After each file has been moved from the recording device to the computer, it will be deleted from the recording device.. Audio recordings and transcripts will be electronically or physically shredded at the conclusion of the project or within 3 years, whichever comes first.

Interview Benefits

I see several benefits to you participating in this study:
You will be able to share the benefits of visiting the MK and your experience of being in that area. Information from this project can be used by organizations such as the Muskwa-Kechika Advisory Board to help identify how specific resource development proposals might impact various wilderness experiences.

UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Participant Agreement

If you are comfortable participating in this interview, I will ask you to complete the informed consent form at the end of this document and return it to me.

Contact

If you would like further information on the research results, please contact myself, Odinn Steinsson (steinsson@unbc.ca) or Dr. Pamela Wright (pwright@unbc.ca). The names and telephone numbers are listed at the top of the first page of this letter.

Who can you contact if you have complaints or concerns about the study?

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the UNBC Office of Research at 250-960-6735 or by e-mail at reb@unbc.ca.

Study Results

The research findings may be published in academic journals. They will also be available to you directly by ticking the box on the consent form attached. In addition, the results will be available in an open access Master's thesis. Results may also be shared at scholarly and professional conferences. In these ways, you will have access to the results of the study.

THANK YOU

UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Wilderness Perceptions Mapping Among Visitors in the Muskwa-Kechika Management Area

Participant Consent and Withdrawal

Please note: taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason and without any negative impact. If you have already provided some information, please make it clear whether you want that portion to remain in the study or be removed from the study.

Any data and/or information you have provided for this project will be treated in the following manner:

- Your participation in the project is entirely voluntary and you are of legal age to provide informed consent;
- You are free to withdraw from the project at any time without disadvantage;
- Personal identifying information from any notes will be destroyed at the conclusion of the project or within 3 years, whichever comes first;
- I will not attach your name or any other obvious identifier with the information you provide, however given that there will be relatively few participants in the study your identity may not be completely anonymous;
- There are no anticipated discomforts or risks associated with your participation;
- There is no remuneration or compensation to be made for your participation, nor will the information provided be used for any commercial purpose;
- You understand that only the principal researcher and his supervisor will have access to the information provided and that it will be stored securely for three years and then shredded;
- Used to write a report for Odinn Steinsson's UNBC Master's Thesis;
- You agree that the interview will be recorded to facilitate note-taking.

CONSENT

I have read or been described the information presented in the information letter about the project.
YES NO

I have had the opportunity to ask questions about my involvement in this project and to receive additional details I requested.
YES NO

I understand that if I agree to participate in this project, I may withdraw from the project at any time up until the project completion, with no consequences of any kind. I have been given a copy of the information letter.
YES NO

I consent to audio recording of the interview.
YES NO

I understand that while the intent is to maintain confidentiality of participants by removing participants' identifying information the nature of participation in an interview with relatively few participants means that I cannot guarantee anonymity.
YES NO

☐ Please check here if you would like to receive a PDF copy of the completed thesis and provide an email address:

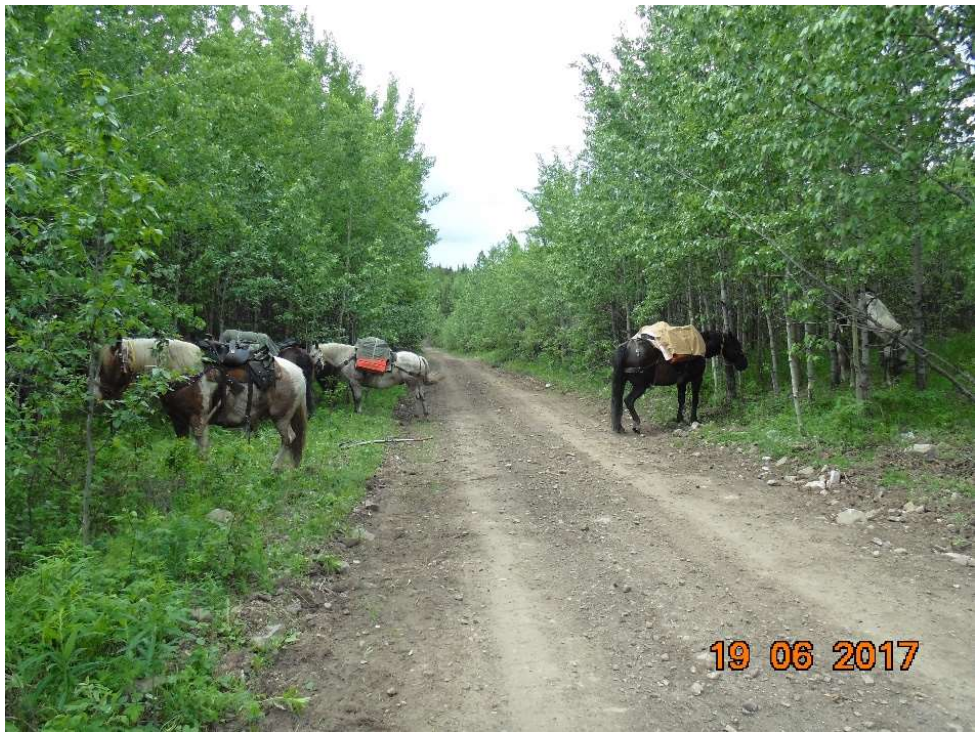
_____

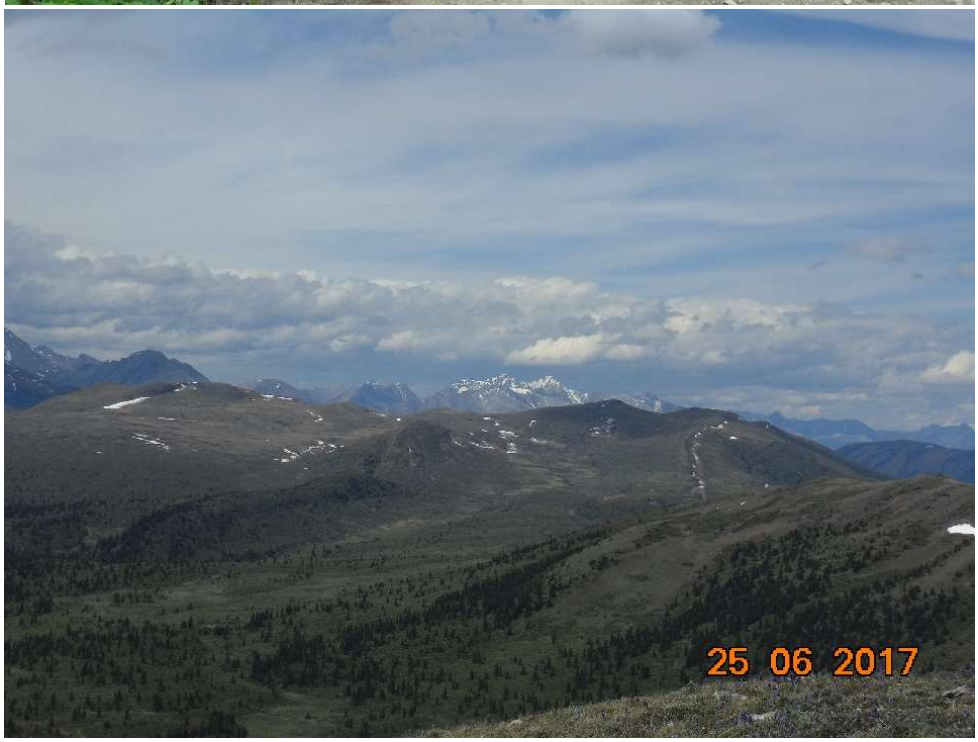
Signature: _____

Name of Participant (Printed): _____

Date: _____

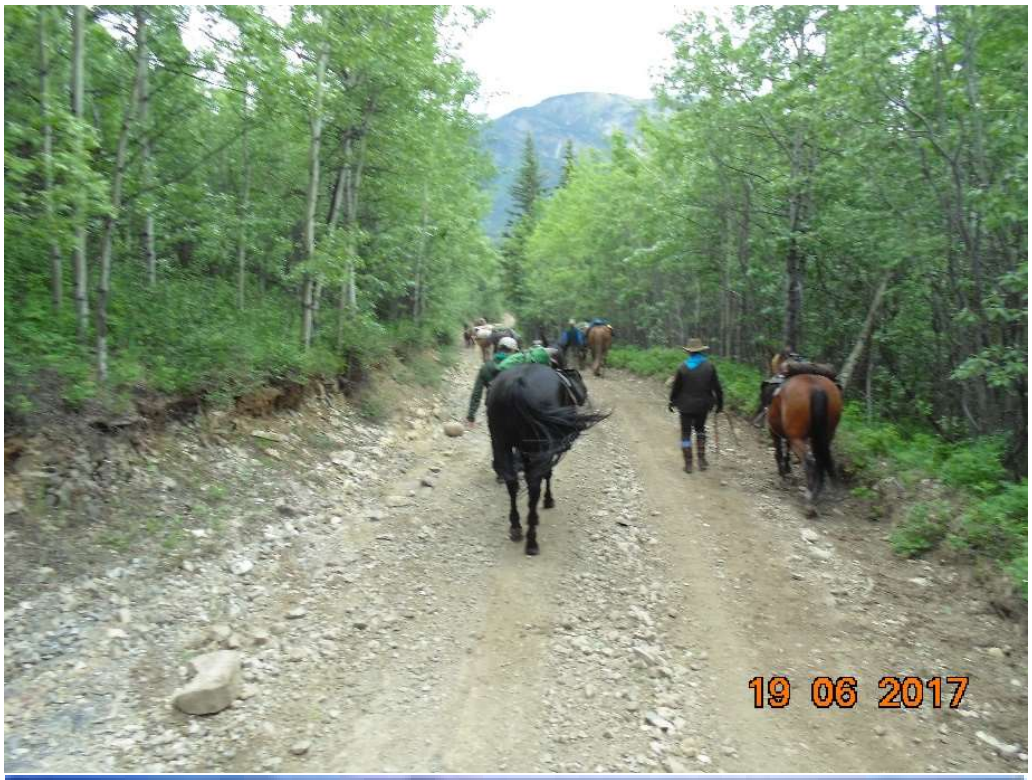
Appendix IV: Photos and Maps Used in the Interviews






23 06 2017


28 06 2017


19 06 2017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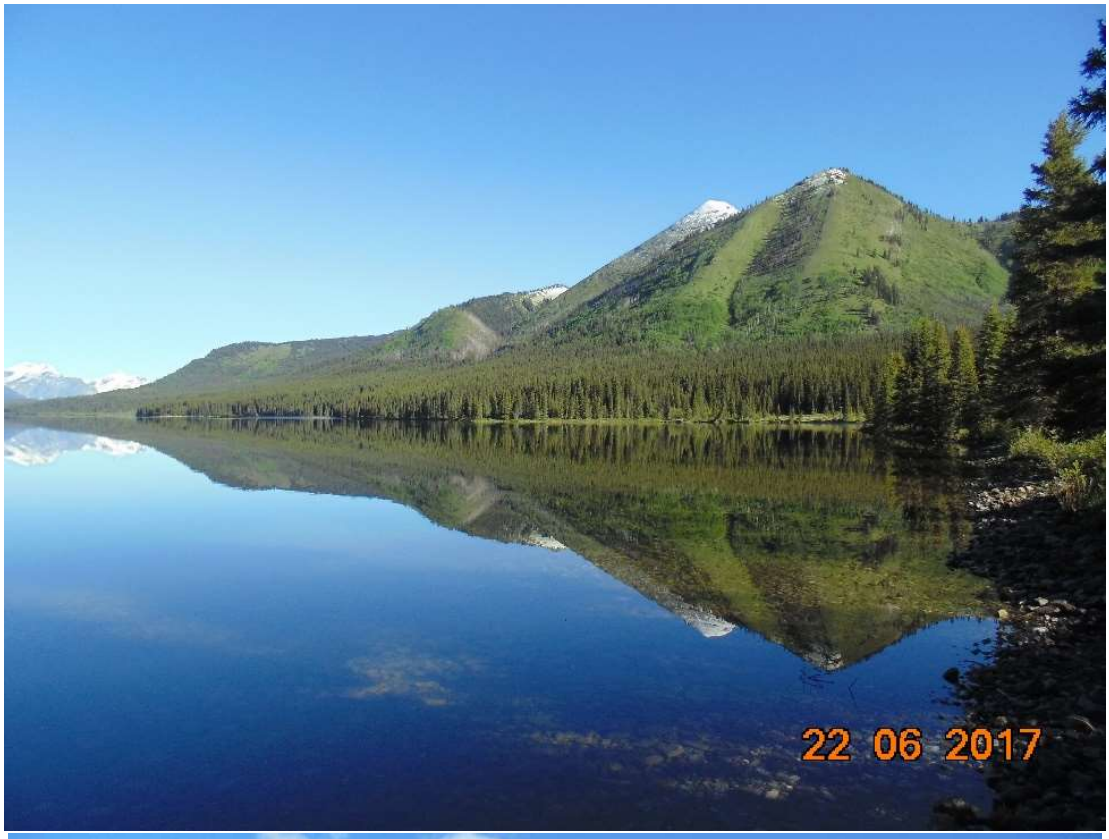
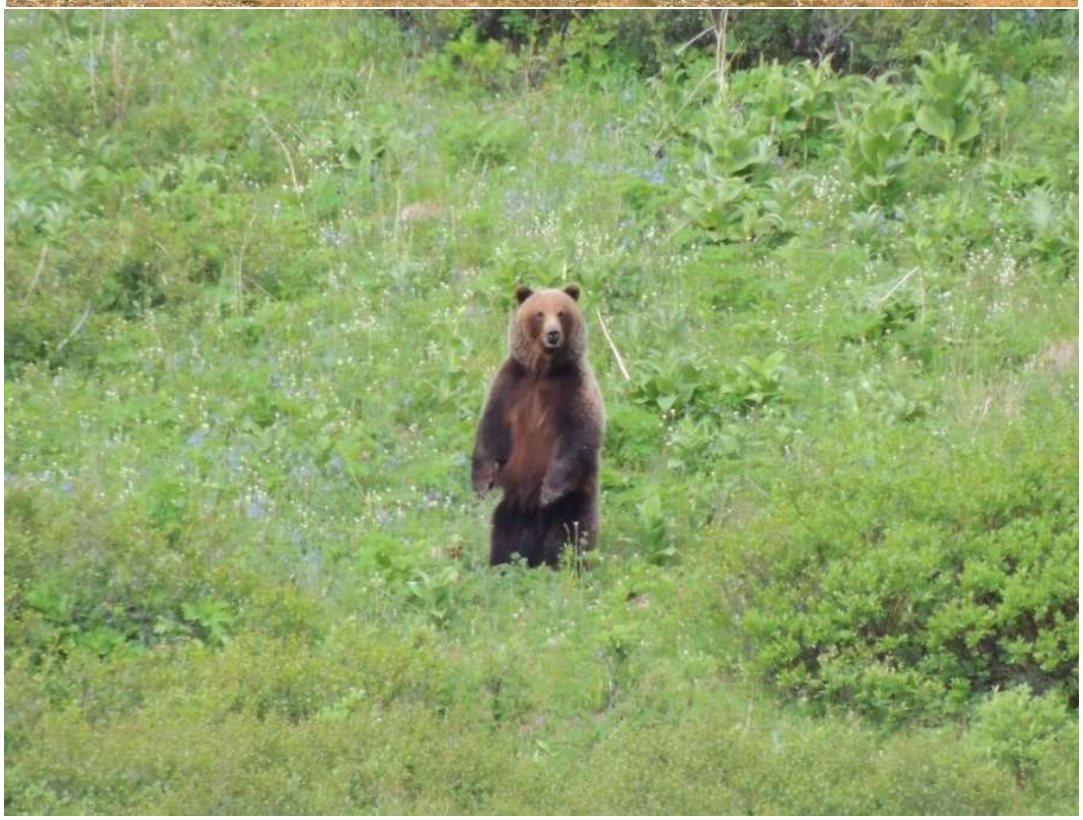
TRIMBLE LAKE
23 06 2017

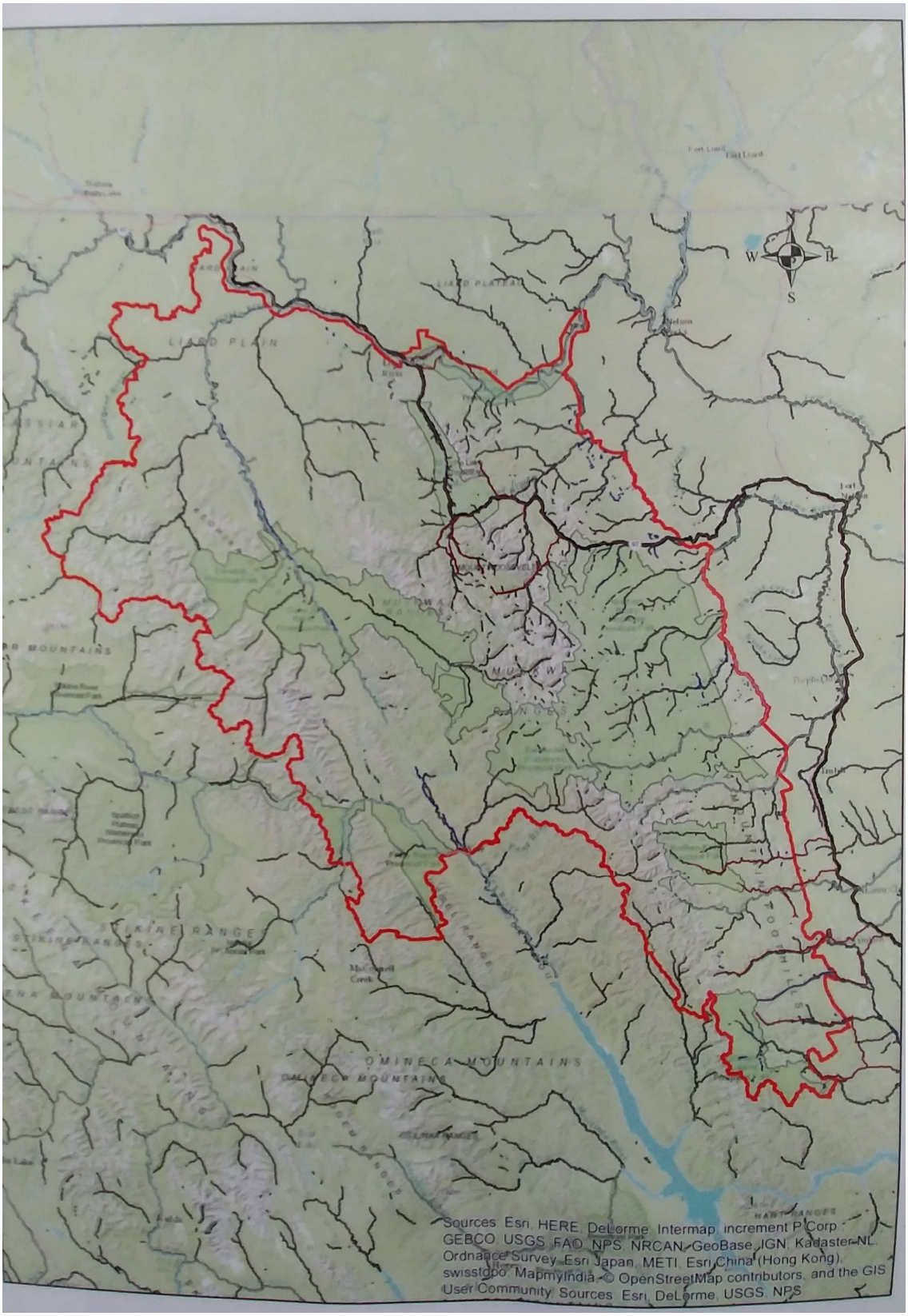

20 06 2017


22 06 2017


C-FGAD
02 07 2017



Map in 11x17” size



Map showing horseback expeditions with MK Adventures. Researcher did Expedition I.