

Indigenous Land Rights and Indigenous Land Use Planning:
Exploring the Relevance and Significance to Wasagamack First Nation,
Northern Manitoba, Canada

by
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Abstract

To document the community priorities and the role of Indigenous land use planning for the *Mino Bimaadiziwin* of Wasagamack First Nation, Manitoba, this research analyzed the land use biographies of 49 harvesters and video interviews of 10 community members. The geographic information system (GIS) analysis of the land use shows a vast expanse of traditional territory used for sustenance activities - fishing, trapping, hunting, gathering as well as cultural ceremonies and habitation. Video interviews reveal community members' desire to protect their territory for community healing, cultural and language revival, and community economic development. Indigenous land use planning is a means to fulfill community priorities to achieve *Mino Bimaadiziwin* of Wasagamack First Nation. The research concludes the need for fundamental changes in governments' policies and programs to promote Indigenous land use planning and to ensure Indigenous rights to their traditional territories to enable Indigenous reconciliation and self-determination.

Keywords: Indigenous land use planning, Wasagamack First Nation, community priorities, traditional territories, *Mino Bimaadiziwin*

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Dedication

I would like to dedicate this thesis to

Late Victor Harper and Wasagamack community members for sharing their wisdom;

my parents and ancestors for their teaching to know who I am today;

Prof. Dr. Dharma Raj Dangol for his inspiration;

and

my wife, Saraswati, and son, Drishya, for their eternal care and love.

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Chapter I: Introduction

If they had left us alone in our way, we would have survived with our own governance, culture and language. We want to be a part of decision making in our territory.

- Norman Wood, Garden Hill First Nation, Manitoba

Colonialism has, both directly and indirectly, dispossessed Indigenous communities in Canada (Council of Canadian Academies, 2014), specifically by confining them to tiny reserves, without consultation (Cornell, 2013). The process of inhabiting Indigenous territories by enforcing colonial policies and laws (Hayes & Cipolla, 2015) has had a negative impact on the *Mino Bimaadiziwin*¹ of Indigenous peoples (Seven Generations Education Institute, 2015).

The governance of Indigenous territories by settler policies with priorities for mining, logging, hydro dams, etc. has limited Indigenous communities' access to and control over their land, traditional ecological knowledge and language (Council of Canadian Academies, 2014; Jojola, 2013; Sandercock, 2004). The repercussions of colonialism, combined with the privatization of natural resources, have detrimentally affected factors essential to their subsistence; notably, access to traditional foods, safe housing, water, and land (Hall, 2013).

Achieving *Mino Bimaadiziwin* requires Indigenous communities to exercise control over their territories and resources to promote community economic development, livelihoods and well-being (Ballard & Thompson, 2013; Thompson, Kamal, & Wiebe, 2012). Such control is essential to ensure a nation-to-nation relationship between Indigenous and non-Indigenous

¹ *Mino Bimaadiziwin* in Ojibwe and Ojibwe-Cree languages means living the good life on Turtle Island (i.e. North America) with their identity, their language and culture, ancestral teaching, connection to land and ways of doing as Indigenous people (Seven Generations Education Institute, 2015).

governments (Tully, 1999) and protection of traditional territory. Indigenous land use planning determines community priorities to ensure Indigenous governance for sustainable resources management (Minkin, Whitelaw, McCarthy, & Tsuji, 2014), reinforce Indigenous sovereignty and protect the Indigenous identity embedded in the ancestral land, culture and language (Hall, 2013)

1.1 Root of the Problem

In Canada, health and food insecurity are key challenges among Indigenous communities. The root of these problems stems from the lack of access to and governance over ancestral land and territory. The right of Indigenous peoples to use and occupy their lands for sustenance, economic uses, community expansion and Indigenous ceremonies is vital for rebuilding their communities and cultures (Alfred, 2009); vital for achieving *Mino Bimaadiziwin*.

The traditional territories, except for federal reserve lands, however, are provincial crown lands, under the jurisdiction of Provincial Governments (Manitoba Government, 1987), which restricts First Nations' access to and use of resources. After Treaties were signed, First Nations were relocated to reserves called *Isko Nigan*² in Ojibwe-Cree, which literally means 'left-over land that is unfit for any activities.' These reserves are controlled by the Federal Government's rules and regulations, even though First Nations never surrendered their land titles and rights to their territory (Tully, 1999). Such policies impede Indigenous people's land/resource access and compromise ceremonial events, showing a disrespect to the true intent of Treaty relations (Tully, 1999). Consequently, Indigenous communities are suffering through challenges, such as food insecurity, degradation of *aki* (land) and water, cultural and

² Based on my interaction with Nora Whiteway, an Elder from Wasagamack First Nation

language loss and lack of self-government (Alfred, 2009). Indigenous stewardship and governance over traditional territories that sustained their good life for generations before colonization is important to regain *Mino Bimaadiziwin*.

Despite the significance of Indigenous planning for a culturally appropriate land use plan, Canada's policies do not promote Indigenous planning to achieve Indigenous sovereignty, self-determination and reconciliation of land rights (Booth & Muir, 2011). The federal government's approach emerges from a non-Indigenous perspective that relies on private consultants, a lesser degree of Indigenous community participation and limited communication shared with stakeholders (Prusak, Walker, & Innes, 2015). Such mainstream processes have overlooked the significance of Indigenous planning (Jojola, 2013) and often clash with Indigenous values. Implementing culturally appropriate Indigenous planning identifies local priorities through an Indigenous lens (Booth & Muir, 2011) with a goal to moving the community toward *Mino Bimaadiziwin*.

1.2 Research Objectives

The purpose of this research is to document 1) Indigenous community priorities and 2) the role of Indigenous land use planning for sustainable use and protection of land and resources i.e. *Mino Bimaadiziwin*, in Wasagamack First Nation, Manitoba, Canada. The specific objectives are:

- i. To document the traditional land use of Wasagamack community members in the territory of Wasagamack First Nation and
- ii. To explore the role of Indigenous land use planning for Wasagamack First Nation for achieving community priorities and *Mino Bimaadiziwin*.

1.3 Why I am Interested in This Study

My background as part of a rural clan sparked a deep interest in learning about the Indigenous paradigm and epistemology of their land and territory. Community priorities and land use planning of Indigenous nations in Canada became my focus. I belong to the *Bagale Thapa* clan of the *Khas-Thapa-Kshyatri* community of Bhedabari, Thapathana, Parbat district, Nepal, where 150 houses of our clan reside. Our³ ancestors are recognized for their skills in war and administration, as well as in farming, livestock and forestry. I stayed in our village until the age of 14, learning about farming, forestry, wild plants and animals, cultural ceremonies and religion from my family members, clan members and village communities scattered throughout our territory.

My undergraduate education encompasses agricultural studies and a master's degree in conservation ecology from Nepal. Upon graduation, I worked in the fields of participatory biodiversity conservation and climate change adaptation in several Nepali communities, such as, Rai, Sherpa, Limbu, Bramhan, Chhetri, Dalits, Thami, Chaudhary, Chepang, Gurung, Magar, etc. I also participated in various policy level meetings and workshops: piloting and preparing Nepal's Local Adaptation Plan for Action (LAPA) Framework, implementing LAPA in Nepal and engaging in policy dialogues on recognizing the land rights of shifting cultivators of Nepal, especially those of the Chepang community.

I stayed in our village until the age of 14, and remained on and off until the age of 33, learning about farming, forestry, wild plants and animals, cultural ceremonies and religion from my mother, grandparents and my extended family - uncles, aunts, cousins of my village - as well

³ In our community in Nepal, we use the term '*hamro*' that translates to 'our' in English rather than 'my' to refer to the village, parents, ancestors, children, cultural sites, etc.

as clan members and village communities scattered throughout our territory. Learning, sharing, bartering, labor exchange and cultural celebrations among the clan members is common in my community. Story-telling is an important oral tradition to transfer ancestral knowledge and skills to younger generation, and learning from/with Elders and team work are considered vital to demonstrate ancestral teaching and learning in my community.

My identity in Canada is non-Indigenous. My cultural background and ancestral teaching to learn from the oral traditions and respect community knowledge, however, are pivotal to learn from other Indigenous communities and argue for the communities to assert their self-determination. To understand the Indigenous context in Canada, particularly in Manitoba, my learning focuses on the communities' experiences, worldviews and approaches in the planning, use and management of lands and resources. The relationships I established with the Wasagamack people guide my research. I agree with the need to share meaningful research with the communities (Smith, 2001); I strive to strengthen my connection with the community; I endeavor to make my work meaningful to Wasagamack and other First Nations in Canada.

1.4 Wasagamack First Nation: Area of Research and Evidence

This research includes data collected through mapping and video interviews with Wasagamack First Nation to document community priorities and the role of Indigenous land use planning in the community, the primary objective of my research. The information was archived in Dr. Shirley Thompson's lab at the Natural Resources Institute of University of Manitoba, from mapping and interview work done by Victor Harper, Johnathon Harper, Nora Whiteway and Dr. Shirley Thompson.

Figure 1 shows the map of Wasagamack First Nation reserve, along with the other three First Nation reserves in Island Lake. Wasagamack was selected as the research site for three reasons. First, Victor Harper, Nora Whiteway and Dr. Thompson wanted to see how to apply the land use and occupancy mapping data and video interviews to 1) help the community reclaim its land, 2) develop a land use plan and 3) support my thesis with due acknowledgement and consultation. The mapping data and interviews were documented through a Social Science and Humanity Research Council (SSHRC) fund: “The Good Life through Indigenous Community Development: Sustainable Development Planning to Build Community Assets in Island Lake First Nation Communities.” Wasagamack First Nation was one of the three community sites in Island Lake, Manitoba; Dr. Thompson was the Principal Investigator of the project. Second, I knew that the Wasagamack First Nation, along with the other three Island Lake First Nations, under the guidance of the Island Lake Tribal Council (ILTC), began a three-year federal government-supported land use planning of the First Nation Reserve in 2017. I wanted to assist where possible. I helped to prepare data, which was then delivered to ILTC and Wasagamack First Nation. Third, the First Nation members are approachable, despite being remotely located, due to the long-term research collaboration and partnership between the community and Dr. Thompson.

Wasagamack is one of the only four Ojibwe-Cree First Nation communities located around the shore of Island Lake in northern Manitoba, Canada (Reynar & Matties, 2015). Nora Whiteway, an Elder, explained that in Ojibwe-Cree, Wasagamack means “the land with bays.” During the winter, this fly-in community is accessible only via ice roads. The Wasagamack First Nation reserve, spanning 80.91 square kilometers, is home to a population of 1,405, residing in

285 houses (StatsCanada, 2017). The majority of the houses (225) are single-detached. The average household size of 4.9, shows overcrowding when compared to the provincial average of 2.5 and the national average of 2.4 (StatsCanada, 2017). The mother tongue, spoken by most of the Wasagamack, is Ojibwe-Cree.

Wasagamack, originally part of the Keewatin district of the North West Territories before the formation of Manitoba in 1870 and its expansion in 1905 (Library and Archives Canada, 2015), became a signatory to an Adhesion to Treaty Five on August 13, 1909 (Indian and Northern Affairs Canada, 1969; Wasagamack First Nation, 2010). The Island Lake Band was represented by Chief George Knott and Councilors Joseph Linklater and John Mason during the signing of the Treaty with the Crown. The Crown was represented by Commissioner John Semmens and witnesses⁴ (Indian and Northern Affairs Canada, 1969). As per the Treaty, the Crown obligations were to:

Provide 160 acres of land for a family of five or in the proportion for larger or smaller families,...maintain schools for instruction in reserve,...pay gratuity of five dollars in cash per person in extinguishment of all claims,...pay five dollars annuity per head,... [continue] right to pursue hunting and fishing throughout the tract [that is unoccupied],...pay sum of five hundred dollars per annum every year in the purchase of ammunition, and twine for nets, supply farming and gardening tools [that includes two hoes, one scythe, one axe and one spade per family; one plough for every ten families; five harrows for every twenty families; and one cross-cut saw, one hand-saw, one pit-saw, the necessary files, one grindstone, and one auger for each band], and compensate for the value of any improvements on the reserves (Indian and Northern Affairs Canada, 1969 para 13,16,17,19,20,23,&24).

The Island Lake Band included four reserves: Wasagamack, Garden Hill, St. Theresa Point and Red Sucker Lake. Prior to the Treaty, the Island Lake community was situated on Linklater Island, also known as Old Post (Wasagamack First Nation, 2010). Victor Harper, an Elder of

⁴ Witnesses were H.S. Stead, Bertha Stead, Barbara Ross, Charles B. Isbester, C. Cunningham, WM. M. McEwen, Walter Ross, and Alex H. Cunningham

Wasagamack First Nation, shared that after the Treaty was signed, the Dominion of Canada told the community to relocate to an Island Lake area suitable for farming and raising livestock (Fallding, 2010). In 1913, the eleven families of the community moved to the Wasagamack reserves (Wasagamack First Nation, 2010) along the edge of Island Lake to easily access the location's clean drinking water (Fallding, 2010).

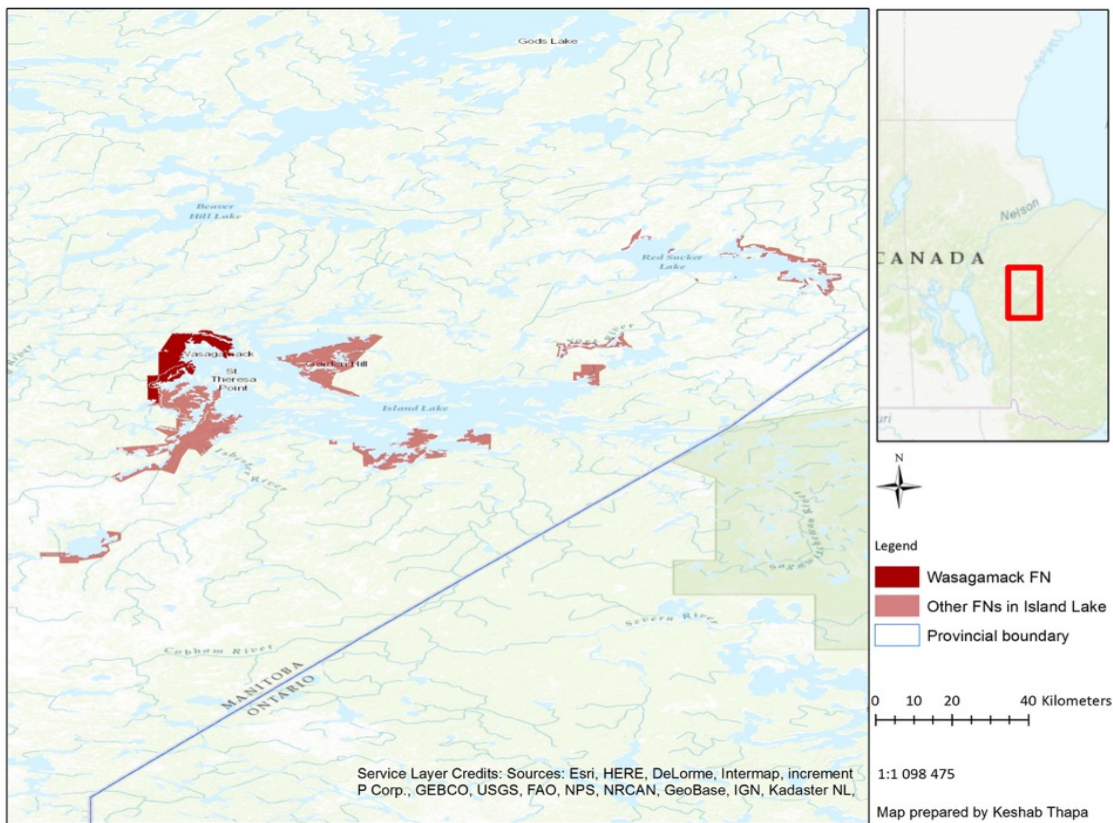


Figure 1. Map of Wasagamack First Nation reserve and other First

The community remained united as an Island Lake Band until 1969 when it was divided into four First Nation communities, each with its own Chief and Councilors (Fallding, 2010). As Victor Harper shared, the imposition of different forms of Christianity through the Churches by the settler government is considered the key reason for the divide (Fallding, 2010); a secondary, yet equally significant reason, was to clear Linklater Island for mining. Yet, the

Island Lake people, also called *Anishininiwuk* people of an *Anishinew* community, have unique tradition and culture; the community members claim they have their own identity but should not be recognized as being half Cree and half Ojibwe (Mcdonnell et al., 2018).

1.5 Research Limitations

The research focus is the Wasagamack First Nation traditional territory only. Expanding research to encompass other Island Lake communities would generate more voices and, in turn, more evidence for identifying Ojibwe-Cree territory in Manitoba. A gender-based analysis of land use and occupancy, not explored here, could be a potential area for future analysis.

1.6 Organization of the Thesis

The thesis is organized into five chapters. Chapter I provides an overview of the research context, objectives, research communities, my positionality and research limitations. Chapter II comprises a review of literature with emphasis on how colonization has impacted Indigenous communities and the problems of the colonial land use planning process in Manitoba, specifically, and Canada, generally. Chapter III describes the research methodology and methods and provides information on data collection, analysis, ethical considerations and trustworthiness. Chapter IV presents the research results and discussion, organized into two parts. The first addresses land use and occupancy of Wasagamack First Nation, accompanied with maps of the traditional territory showing their different land uses. The second section explains the findings of semi-structured video interviews with the community regarding the significance of land and Indigenous land use planning. Chapter V draws conclusions and offers recommendations for future research.

Chapter II: Review of Literature

The literature review section begins with the impact of colonialism on Indigenous communities in Canada followed by why Indigenous land rights are important for Indigenous sovereignty. A rationale of land use planning initiated by the federal and provincial government is discussed. Finally, the review presents why Indigenous land use planning in Canada is important to achieve peace, prosperity and sustainable development, particularly in the northern Canada areas inhabited almost exclusively by Indigenous peoples.

Ongoing colonialism, seen through policies, economics and development, continue to focus attention on the priorities of settler communities (Moore, Walker, & Skelton, 2011). Indigenous land rights are the lowest priority of provincial and federal governments against their vested interests in promoting industrial development and capitalism. Planning of Indigenous territories through the involvement of Indigenous communities, as evidenced in the east side of Lake Manitoba, is evolving. Indigenous governance and Indigenous land use planning in the traditional territories of Indigenous peoples is receiving greater attention.

2.1 Impact of Colonialism on Indigenous Communities in Canada

Occupying Indigenous territories with permanent settler communities and their requisite policies, colonialism privatized Indigenous lands and resources for capital accumulation creating dispossession (Sandercock, 2004). Europeans, more specifically the French, the British, and then post-confederation Canadians, have governed Indigenous peoples and their territories in Canada for the last 400 years by imposing colonialism (Canada Royal Commission on Aboriginal Peoples, 1996b). This centuries' spanning process, involving colonial officials to recent Canadian government representatives (Moore et al., 2011), isolates

Indigenous communities and prevents Indigenous movements against the colonizers (Sandercock, 2004).

Through dispossession stemming from colonialism and post-confederation, Indigenous communities lost their access to and control over their ancestral lands and resources (Sandercock, 2004). Free entry and governments' unilateral decisions for exploiting mineral resources are the key political mechanisms that continue to see Indigenous communities vulnerable to dispossession in Canada (Panagos & Grant, 2013). Furthermore, corporate control over Indigenous land and resources is evident by Hudson's Bay Company taking over Indigenous lands in the past to present-day mineral extraction companies and hydropower companies having a free entry system (Slowey, 2001). Consequently, the land and resources of Indigenous peoples/communities in Canada have become key assets for the settler societies to maintain their standards of life. Only a negligible portion of income earned from Indigenous lands is returned to Indigenous communities, mainly through the weary social assistance approach (Canada Royal Commission on Aboriginal Peoples, 1996b; Sandercock, 2004).

The dispossession of Indigenous communities in Canada, through state governance and corporate control (Slowey, 2001), has led to:

- high levels of food insecurity (Thompson et al., 2012);
- socio-psychological trauma, cultural loss, through the gap in intergenerational transfer of Indigenous culture, language, and tradition (Truth and Reconciliation Commission of Canada, 2012); and
- underemployment, addictions to drugs and alcohol, as well as health challenges (Booth & Muir, 2011).

Alongside dispossession, Indigenous peoples suffered greatly from diseases carried by Europeans, such as small pox, tuberculosis, influenza, scarlet fever and measles (Canada Royal Commission on Aboriginal Peoples, 1996a). On a deeper level, colonialism invaded Indigenous culture through residential schooling and Christianity, depriving Indigenous children of connections with their parents and culture (Moore et al., 2011). The purpose of residential schools was to separate children and youth from their parents, language, culture and ceremonies, as well as to break the family bonds, social cohesion and self-government of Indigenous peoples (Truth and Reconciliation Commission of Canada, 2012).

2.2 Food Insecurity of Indigenous Peoples in Canada

Having adequate food is a human rights issue in the world, although there is a huge difference between policy recognition and actual implementation to achieve food security of every citizen in the world (FAO, 2006). Colonialism has directly affected food security of Canada's Indigenous peoples (Elliott, Jayatilaka, Brown, Varley, & Corbett, 2012). Even though the Canadian government is a signatory to many food security-related declarations and conventions, the integration of food security issues into national policy and their implementation to improve socio-cultural well-being of First Nations are inadequate (Cidro, Adekunle, Peters, & Martens, 2015; Power, 2008). The key constraints are: inadequate access to affordable and nutritious foods in rural and urban areas (Cidro et al., 2015), inadequate access to traditional food and ancestral lands (Elliott et al., 2012), few bottom-up initiatives that promote local availability of nutritious and diverse foods (Thompson et al., 2012) and inadequate integration of the Indigenous worldview in policies (Cidro et al., 2015; Power, 2008; Thompson et al., 2012).

The food security of First Nation people is affected by multiple factors related to colonial government policies and environmental concerns (Elliott et al., 2012). These factors are: increased cost of living, loss of food-related skills, less availability of traditional foods, less sharing of food and contamination of food due to environmental degradation (Elliott et al., 2012). The following statistics highlight the degree of food insecurity in Canada. In 2012, food insecurity existed in 75% of First Nation households in northern Manitoba (Thompson et al., 2012). Here, food security is negatively impacted by private sector centric development interventions, such as hydro-electric dams. Flooding has negatively affected hunting, fishing and berry picking areas, as well as fish populations through effects on spawning (Thompson et al., 2011). In the Inuvik region, NWT, food insecurity existed in 70% of Inuit households (n=54), in 2012, due to inadequate food at home and lack of access to more food (Ford, Lardeau, Blackett, Chatwood, & Kurszewski, 2013).

2.3 Indigenous Land Rights and Progress in Canada

The rights of Indigenous peoples to self-determination, empowerment and self-government are vital for strengthening their sustainable livelihoods (United Nations, 2008). Indigenous peoples have raised their voices to reclaim their lands through global movements to reverse the injustice and dispossession that they have faced through colonialism (Lane, 2006; Sandercock, 2004). Reclaiming Indigenous lands and territories is important for sustainable community development, i.e. *Mino Bimaadiziwin*. This is consistent with Articles 24, 25, 26, 27 and 28 of the United Nations Declarations on the Rights of Indigenous Peoples (UNDRIP), stating Indigenous peoples' have the right to own, use, develop, protect and control Indigenous lands, territories and resources (United Nations, 2008).

Globalization through capitalism and neoliberalism has influenced the role of government, in countries like Canada, towards corporate development in Indigenous lands (Slowey, 2001). This has an impact on Indigenous *Mino Bimaadiziwin*. In terms of legal provisions, the Indian Act of Canada is a key obstacle for Indigenous communities to achieve Indigenous self-determination. Ovide Mercredi, First Nations leader and former chief of the Assembly of First Nations, during his speech at the Crown-First Nations Gathering in Ottawa, 2012, shared the way the Indian Act has hindered Indigenous sovereignty:

When you become a Chief you should learn that even though you want to remain an Indian, the Indian Act is in the way. It stands in the way of economic progress. It stands in the way of our own self-determination as a people. It stands in the way of even defining who we are as a people and who can belong to our Nations. It's not just a big hole, it's an obstacle (para. 9).

As per the Indian Act, Indigenous peoples do not have legal authority to use reserve land, a piece of land where Indigenous peoples were forcefully relocated by the settler government, to fulfill the needs and priorities the people set. Instead, the Indian Act gives the federal government full authority over the reserve land:

Subject to this [Indian] Act, reserves are held by Her Majesty for the use and benefit of the respective bands for which they were set apart, and subject to this Act and to the terms of any treaty or surrender, the Governor in Council may determine whether any purpose for which lands in a reserve are used or are to be used is for the use and benefit of the band (Minister of Justice, 1985, p. 23 Section 18 (1)).

In addition, as per Section 20 (1) of the Indian Act, none of the Indigenous peoples have legal ownership of their land in the reserve. Legal ownership is given only if the band council allocates 'the possession of the land' and the Minister approves, according to section 20 (2), to provide a 'Certificate of Possession' (Minister of Justice, 1985, p. 23). The Minister, however, can withdraw the approval of a Certificate of Possession and only allow the family to

temporarily occupy the reserve land for two years, based on a 'Certificate of Occupation'. After two years, the Minister may approve the Certificate for an additional two years and after that. Alternatively, an extension may be completely rejected (Minister of Justice, 1985, p. 24 and 25 Section 20 (4,5,6)).

In addition to the Indian Act, Manitoba government policies create obstacles preventing Indigenous communities access to their ancestral land and territory. Indigenous lands have high potential to be under corporate control as 'land,' defined in government documents, includes everything that can easily come under government and corporate control. For example, the Planning Act of Manitoba defines 'land' as:

“Land” means land, messuages, tenements and hereditaments, whether corporeal and incorporeal, of every kind and description, *whatever the estate or interest therein, whether legal or equitable*, and all mines, minerals, and quarries, unless specially excepted (Manitoba Government, 2005, p 3, *emphasis added*).

Furthermore, the goals of provincial land use policies in Manitoba revolve around infrastructural development, commercialization promoting a capitalistic economy, state-imposed protection of areas of natural and historic significance and mineral development (Manitoba Government, 2005). The goals depict little government attention to Indigenous land rights, culture and sovereignty. Scholars and human right experts are clear that extraction of resources in Indigenous lands, without considering their legal rights and social concerns, is grossly unethical (Booth & Muir, 2011; Tully, 1999).

Treaties hold mixed meanings across cultural divides. The sovereign First Nation leaders signed the Treaty with the Crown to demonstrate mutual respect and

cooperation through land sharing. The Canadian government, however, viewed the Treaty as an opportunity to enforce legal land rights against First Nations (Truth and Reconciliation Commission of Canada, 2012). The pre-1982 situation reflected non-recognition of Indigenous rights and Treaties in the Canadian constitution. Federal and provincial governance systems also failed to recognize Indigenous rights in their operation (Panagos & Grant, 2013). Panagos & Grant (2013) explain the pre- and post-constitution legal standing of First Nations:

Prior to 1982, then, the existing constitutional order in Canada did not offer Aboriginal peoples many litigation-based options for securing the enforcement of treaties or for protecting their rights. In constitutional terms, Aboriginal peoples did not have a proverbial leg to stand on. Thus, the pre-1982 legal environment facilitated the exclusion of Aboriginal peoples and their interests from many areas of public policy, including the mineral resource sector (p 412).

Tough (2004) argues that, especially in the context of Manitoba and Alberta, Indigenous rights to hunt, fish and trap were defined in the Constitution Act 1930 and the Natural Resources Transfer Agreement (NRTA), signed on December 14, 1929, between the Dominion of Canada and the two provinces. NRTA sections 11, 12, and 13, which receive little discussion in literature (Tough, 2004), include provisions about Indian reserves. Section 13 of the agreement includes:

In order to secure to the Indians of the Province the continuation of the supply of game and fish for their support and subsistence, Canada agrees that the laws respecting game in force in the Province from time to time shall apply to the Indians within the boundaries thereof, provided, however, that the said Indians shall have the right, which the Province hereby assures to them, of hunting, trapping and fishing game and fish for food at all seasons of the year on all unoccupied Crown lands and on any other lands to which the said Indians may have a right of access (The Manitoba Natural Resources Transfer Act C.C.S.M. c. N30, 1987, p. 8)

After the Constitutional Act of 1930, specifically the NRTAs, the Canadian Constitution, amended in 1982, provided slight but insufficient hope for Indigenous peoples to leverage

Indigenous leadership for Indigenous sovereignty and self-determination (Abele & Prince, 2006). The Royal Commission on Aboriginal Peoples recommended federal and provincial government ensure Indigenous land rights to achieve Indigenous self-determination (Royal Commission on Aboriginal Peoples, 1996). Post 1982, however, the situation differs from an Indigenous rights perspective. Section 35 of the Supreme Court of Canada (SCC) 1997, although ambiguous and top-down in terms of jurisdictional authority, created an enabling environment for further legal and political discourse, recognizing that peoples having Aboriginal title have rights to their territory. The Crown also has a duty to consult with Indigenous communities and accommodate their concerns with respect to making decisions over Indigenous territories (Panagos & Grant, 2013).

Despite the provision of Indigenous rights and recognition of Treaty rights, Indigenous peoples are still struggling (Sandercock, 2004) and demanding inherent rights to their lands and resources (Booth & Muir, 2011). In this context, how effectively Section 35 of the Supreme Court of Canada, 1997, has been implemented toward Indigenous reconciliation in Canada, so far, can be questioned. Despite the SCC's ruling in resolving Indigenous right issues and the Crown's duty to consult and accommodate Indigenous peoples's concerns, a high degree of uncertainty predominates in dealing with mineral extraction from Indigenous territories (Panagos & Grant, 2013). The Canadian government's response to Indigenous claims are ambiguous, posing diverse challenges for the reconciliation process (Lane, 2006) rather than responding to the real needs and issues of Indigenous peoples (Slowey, 2001). Therefore, the issue is not about Indigenous recognition by the government but about Indigenous land claims (Lane, 2006).

The Canadian governments' economic welfare approach to respond to Indigenous land issues shows that the governments are still non-committal to Indigenous sovereignty (Abele & Prince, 2006). In contrast, the Indigenous worldview of land is to preserve and transmit it for future generations to sustain land use and Indigenous culture (Slowey, 2001) in order to achieve *Mino Bimaadiziwin*. Canadian governments are still inclined towards the colonial mindset of increasing the dependency of First Nations people on outsiders (Truth and Reconciliation Commission of Canada, 2012). Canadian governments should reduce the barriers to Indigenous sovereignty, including land ownership, land management and self-government (Slowey, 2001).

The governments should place emphasis on guaranteeing a practice of Indigenous land rights and Indigenous self-government by redefining current hindering policies and strategies. Indigenous self-determination and sovereignty is possible if Canada respects, honors and implements Treaties for 'mutual benefits of the signatories,' rather than invoking the Indian Act (Mercredi, 2012, para. 10). In addition to the Treaties, the NRTAs, Constitutional Act 1982, Truth and Reconciliation Commission Calls to Action and UNDRIP provide ample evidence and ways for Canadian governments to ensure Indigenous self-government and *Mino Bimaadiziwin*.

2.4 Land Use Planning in Canada

Canada's land use planning is a top-down approach promoted by the different levels of governments. The discourse on land use planning in Indigenous territories began after 1996 when the Royal Commission on Aboriginal Peoples recommended that the government develop land use plans through initiating consultation with 'intervener funding' system delivered via state mechanisms (Royal Commission on Aboriginal Peoples, 1996, p 177). This top-down

model asks provinces to garner support from 'companies, as part of their operating license' to develop land use plans to protect sacred sites and to compensate adverse effects that accrue from activities such as mining or drilling (Canada Royal Commission on Aboriginal Peoples, 1996, p 621). Furthermore, the Canadian government considers planning as a tool to promote local development by exploiting land and resources as a primary source of capital. Recognition of the needs and aspirations of Indigenous communities fails to receive adequate consideration (Sandercock, 2004).

Canadian governments prioritize extracting minerals through mining, without acknowledging its adverse impacts on Indigenous communities (Hall, 2013). Consequently, communities face challenges in claiming their sovereignty due to their unequal interaction with the state. The state still dominates Indigenous communities through its colonial administrative structures and institutions. Indigenous communities struggle for Indigenous land rights, autonomy, reconciliation and community economic development opportunities (Sandercock, 2004).

Although land use planning is a possible response to Indigenous reconciliation, the Manitoba Provincial Planning Regulation 2011 describes land use planning from the settlers' society perspective to benefit the settler communities:

Land use planning employs a proactive approach to making decisions about the use and development of land and resources. The focus is on moving toward a common vision or goal that represents the public interest; it is not simply restricting or regulating development (Manitoba Government, 2011, p. 7).

The regulation focuses on achieving sustainable development by working on issues of global importance, the priorities of the mainstream population and the interests of the provincial government. Priorities include climate change mitigation, energy efficiency,

public investment maximization and green technologies development (Manitoba Government, 2011). Although the regulation includes taking a proactive approach in making decisions related to sustainable uses of provincial lands and resources, the regulation neglects the needs and priorities of Indigenous communities, including the significance of reviving and promoting Indigenous activities and culture.

Mining, infrastructure development and commercialization through resource privatization are the key priorities of Manitoba government, which the Planning Act and the Planning Regulation vividly describe (Manitoba Government, 2005, 2011). The 2011 regulation at least acknowledges the rights of Indigenous communities; however, the Planning Act and the Manitoba Mines and Minerals Act only include the term ‘local people;’ terms that reflect Indigenous people, such as ‘Indigenous’, ‘First Nation’, ‘Aboriginal’, or ‘Metis’ are not apparent (Manitoba Government, 1991, 2005). The province’s vested interest in mining leads it to ultimately make decisions for mineral extraction, irrespective of the impacts these activities have on Indigenous communities. Mineral development is clearly reflected in the Manitoba Provincial Planning regulation below:

Manitoba has ownership and authority of its mines and mineral rights, including royalties. Manitoba has a system of dual land tenure where surface rights and **mineral** rights can be separate and owned by different parties. As a result, potential for access, use and occupation conflicts exists. It is in the provincial interest to honour **mineral** access and development rights associated with **mineral** disposition and ensure that appropriate security of tenure is achieved (Manitoba Government, 2011, p. 38 emphasis added).

The Mines and Minerals Act defines mineral rights as, “...rights to produce minerals that are found on, in or under land, *whether or not title to the minerals in the land is severed from the*

title to the land" (Manitoba Government, 1991, p. 7 emphasis added). This definition does not acknowledge the rights of First Nations to their ancestral territories. More specifically, section 8(1) of the Mines and Minerals Act includes the Crown acquisition of land interests as:

The minister may, for and in the name of the Crown, acquire private mineral rights or surface rights in land by purchase, lease, expropriation or otherwise, where the minister deems that interest in land to be necessary for the development of a mineral deposit and the development to be in the public interest. (Manitoba Government, 1991, p. 18)

An important initiative for the Canadian government to strengthen partnerships with First Nations communities is to allow the communities access to land and natural resources in their territory (Booth & Muir, 2011). Culturally-appropriate land use planning that supports traditional culture and community development has received very little attention (Booth & Muir, 2011). A non-Indigenous philosophy and a reductionist worldview has led to provincial priorities focused on promoting resource extraction and limiting Indigenous communities' access to marginal lands only.

The top-down land use plan preparation process results in an ineffective representation of First Nation spirituality (Booth & Muir, 2011). A review of 12 land use plans with 12 First Nation communities in British Columbia revealed that the plans clearly articulated Indigenous culture, past planning history and respect to maintaining Aboriginal and Treaty rights and title. Nevertheless, the plans were prepared by using strategies with non-Indigenous philosophy, tenets and application (Booth & Muir, 2011). For instance, the land-use zoning, stemming from a non-Indigenous philosophy, has disintegrated entire landscapes into several pieces, without considering the regions' spiritual and holistic significance to First Nations (Booth & Muir, 2011). When based on non-Indigenous philosophy and leadership, land use plans pose philosophical

challenges. The plans do not address the issues land rights of First Nations land rights, but blend the issues with uncertainties, such as climate change (Booth & Muir, 2011).

2.5 Indigenous Land Use Planning to Achieve Indigenous Sovereignty in Canada

Indigenous land use planning can be instrumental in achieving Indigenous sovereignty in Canada (Prusak et al., 2015). Such planning would address Indigenous land claims by reconciling competing claims and uses of Indigenous territories through negotiations, gaining knowledge about land/resource planning and identifying community aspirations for land uses (Lane, 2006). Sandercock (2004) highlighted how important the land rights for the Indigenous communities are:

When Libby Porter began her work in two Indigenous communities in south-eastern Australia, her research question and practical interest was how planning might become more inclusive of Indigenous interests, knowledge, and aspirations. She gradually came to understand that she had been asking the wrong question. For Aboriginal people, the issue was not about participation or inclusion, it was about rights and the material benefits that would flow to Indigenous nations when those rights are recognized. Inclusive planning practices cannot “shift the effects of (post)colonial structures and relations of power on Indigenous nations without a fundamental recognition of rights” (Sandercock, 2004, p. 120).

State-driven land use planning processes do not adequately embrace Indigenous worldviews and are not accountable to the community relationships. Rather, the process focuses on generating a shopping-list of activities, derived by private consultants, with limited community input, that are scientific, abstract and rarely shared with Indigenous communities in a useful fashion (Sandercock, 2004; Prusak et al., 2015). Although private consultants prepare land use plans, funding for implementation is either inconsistent or unavailable (Booth & Muir, 2011). Indigenous people-driven land use planning, therefore, would identify action plans and

priorities for Indigenous communities to manage land and resources and to promote community economic development interventions (Sandercock, 2004).

In contrast to government-led land use planning, Indigenous land use planning recognizes the sociocultural, institutional and historical perspectives of Indigenous communities. Actions are prioritized to increase access of Indigenous communities to their land and resources and to support traditional activities, such as hunting, fishing, trapping and gathering (Booth & Muir, 2011; Lane, 2006). Indigenous leadership in land and resources planning in Wendaban Stewardship Authority, Ontario, provides evidence of successful Indigenous planning that focused on timber, cultural heritage, wetlands and overall stewardship of the area (Lane, 2006). Thus, Indigenous land use planning can empower Indigenous communities to lay claim to their land rights and sovereignty. Attaining these goals reconstitutes Indigenous communities, restoring them to states of spiritual and physical satisfaction lost due to dispossession and cultural gaps (Sandercock, 2004).

Indigenous land use planning can address issues of land rights of First Nations by ensuring their access to and control over their ancestral lands and resources (Booth & Muir, 2011). Government planning has inadequately understood the leadership of Indigenous communities for planning their territory in Canada (Booth & Muir, 2011). Lane (2006), however, articulates why Indigenous leadership is important to the planning of Indigenous territories:

A planning agenda for indigenous communities would *concurrently* employ three different approaches to planning: (i) protecting their interests by engaging with the planning activities of the state, (ii) using planning to help their successful acquisition of lands through legal land claim processes, and (iii) using community-based planning to help realize community-development goals (p. 388).

In order to promote Indigenous land use planning, policy makers, planners and researchers should establish a meaningful collaboration with Indigenous peoples to provide technical assistance to the First Nations communities (Lane, 2006). In addition, a central repository of land use plans, secure and private to corporate and government interests, can reduce First Nation's dependency on external consultants, facilitate preparing culturally appropriate land use plans rooted in Indigenous values, and allocate adequate finances for implementation (Booth & Muir, 2011). Policies should strengthen the leadership roles of the First Nation's band chief and tribal councils to reflect Indigenous worldviews, ways of thinking and futures planning (Prusak et al., 2015).

2.6 East Side Lake Planning in Manitoba

Planning for the East Side Planning Initiative (ESPI), Lake Winnipeg, formally began in 2000 when the Manitoba Government adopted the report from the Consultation on Sustainable Development Implementation (COSDI) held between the fall of 1997 and spring of 1999 (Manitoba Government, 2004). The planning zone, covering approximately 82,000 sq. km, includes 16 First Nations and 18 non-First Nations communities (Manitoba Government, 2004). Initiatives aimed at providing "strategic suggestions and direction to east side communities, government departments and agencies, and everyone engaged, or thinking of engaging, in commercial and recreational activities in the area" (Manitoba Government, 2004, p. 16). To ensure that the plan addressed protection of the region's boreal forest, as well as traditional activities and community economic development, the committee submitted a status report entitled, 'Promises to Keep,' to the Manitoba Government, with more than 100 recommendations (Manitoba Government, 2007). In 2005, the ESPI was named Wabanong

Nakaygum Okimawin (WNO) to reflect First Nation peoples living in the region (Manitoba Government, 2007).

WNO planning included several phases, such as the preliminary discussion to gather views from stakeholders and communities, followed by the preparation and adoption of the plan (Manitoba Wildlands, n.d.). Phase one identified inputs related to the planning area, issues and opportunities, the planning process, research needs and advisory bodies (Manitoba Wildlands, n.d.). In addition, phase one recommended research on compiling existing information on environment, biodiversity, socio-economics, land use and resources, culture and heritage, mapping, etc. for use in the planning phase (Manitoba Wildlands, n.d.). Phase one concluded in 2002 with focus on the timeline and steps of the planning process, the boundary of the planning area and the formation of an East Side Lake Winnipeg Round Table and a Stakeholder Advisory Committee (Manitoba Wildlands, 2007). During the second phase of WNO planning, from March 2002 to August 2004, 16 First Nations signed a memorandum of understanding (MoU) with the Manitoba Government. The MoU acknowledged Aboriginal treaty rights in WNO; however, phase two concluded without a work plan, which was the key objective of the phase (Manitoba Wildlands, 2007). Phase three began in December 2004. In 2007, an accord entitled, 'Wabanong Nakaygum Okimawin Council of Chiefs Accord,' was signed between the east side First Nations Chiefs and the Manitoba Government to ensure involvement of First Nation communities in decision-making and to promote traditional land use plans and sustainable economic development to benefit local communities (Manitoba Wildlands, 2007). After 2007, the Manitoba Government committed to transfer funds to each First Nation community, for five years, through a proposal-driven funding mechanism in land

management planning. Currently, the funding mechanism in WNO is under review (as briefed by Shawna Wolfe, who represented Manitoba Sustainable Development during the ILTC Land Use Planning Training Workshop held in Buffalo Point, Manitoba, 18 April 2017).

Preparation of land use plans by each First Nation community in the WNO has been progressing slowly since 2007. So far, four First Nations, namely, Poplar River, Bloodvein, Little Grand Rapids and Pauingassi, have prepared their land management plans (Manitoba Government, n.d.). These First Nations received many times the amount of funding than did other communities after agreeing to be part of a UNESCO World Heritage application. These plans focus on protecting lands and resources with the concept of seven-generation thinking by First Nation communities. For instance, Poplar River First Nation prepared their 2011 land management plan as 'Asatiwisipe Aki Management Plan,' with the goal of protecting "the land from industrial developments, sustaining natural ecological processes for present and future generations" (Poplar River First Nation, 2011, p. 5). First Nations communities have yet to find their meaningful role to implement the land use plans with their leadership and adequate funding (Hostetler, 2018). Currently, the land use plan preparation is underway, with support from the Federal government, in the Island Lake area. The four First Nation communities - Wasagamack, Saint Theresa, Garden Hill and Red Sucker First Nation – are involved through ILTC, with focus on reaching out to their ancestral territory.

2.7 Summary of Literature Review

This chapter reviewed how colonialism has affected Indigenous livelihoods and Indigenous rights to regain control of traditional territories. The discourse on Indigenous rights to their territory and Indigenous self-determination is gradual. Governments have ultimate

jurisdiction over the Indigenous territories, as Crown lands, limiting Indigenous communities' access to and control over the land/territories to plan and protect. Government policies are the key hurdles to Indigenous *Mino Bimaadiziwin* through promoting mining and outside companies into the Indigenous territories.

The literature review also highlights that the government planning is guided by non-Indigenous philosophy that prioritizes the needs and aspirations of non-Indigenous communities located in the urban centers. Land use planning in Indigenous territories has gained some attention, but the planning process is influenced by the government and the people hired to undertake the planning to prepare plans that have less relevance to the communities and that do not address the issues of Indigenous rights to traditional territories. Some efforts are apparent, led by Indigenous communities, such as First Nations communities in WNO, Manitoba, despite the funding constraints, to negotiate for planning their territory, despite funding constraints.

The literature review is a basis to contextualize my arguments for ensuring Indigenous land use planning to reclaim Indigenous rights to their ancestral territory and achieve *Mino Bimaadiziwin*. Working with the issues of Indigenous communities through an Indigenous research paradigm, this research attempts to establish a long-term relationship with the local communities to find ways to contribute to the research needs of the community (Smith, 2001; Wilson, 2008). The key focus is to present community land use and community voices to reach to a broader audience along with the review of literatures to support the arguments for Indigenous self-determination (Smith, 2001).

Chapter III: Methodology

3.1 Research Paradigm and the Approach of Inquiry

The research documents the community priorities and the role of Indigenous land use planning for sustainable use and protection of land and resources in Wasagamack First Nation, articulating the relationships that Wasagamack community members have with their ancestral/traditional territory. The research also intends to benefit the community through documentation and sharing of their experiences and perspectives to reclaim their rights to their territory (Smith, 2001; Wilson, 2008). An Indigenous research paradigm is used to describe the relationship of Wasagamack community members with their traditional territory and to argue for the role of Wasagamack-led planning of their territory to achieve *Mino Bimaadiziwin* (Smith, 2001; Wilson, 2008). In the Indigenous research paradigm, knowledge is considered holistic and is developed through an interaction among individuals, nature and the universe; rather than claiming ownership, the role of a researcher, here, is to disseminate the knowledge to wider audience (Wilson, 2008). Thus this research analyzed and interpreted the knowledge and experiences that Wasagamack community members hold and own holistically (Wilson, 2008).

A mixed-methods inquiry approach was adopted, using GIS data of land use and video interviews of Wasagamack community members. Besides triangulating the findings, the rationale for adopting the approach was to provide a comprehensive perspective of Wasagamack-led land use planning through the land use data and video interviews (Collins & O'cathain, 2009; Hesse-Biber, 2010). GIS mapping and analysis included quantitative assessment of land use, which are supported by the video interviews. The interviews of Wasagamack community members are analyzed for sub-themes and themes that emerged,

based on their expressions and link to land use maps. As stories are a means of transferring Elders' experiences and messages to the younger generation, linking the past to the future through the present (Smith, 2001), a story-telling format was used to interpret and present the results through sharing the community perspectives. Figure 2 provides an overview of the research methods.

Indigenous researchers are best suited to contextualize, collect, analyze and interpret information on Indigenous communities (Smith, 2001; Wilson, 2008) due to their interest in bringing about positive change in their communities. By acknowledging these circumstances, even though I am a non-Indigenous and non-Canadian researcher, I adhered to what Wilson (2008) states, "You are relating a personal narrative ... You are telling your (and their side) of the story, and then you are analyzing it" (p 115).

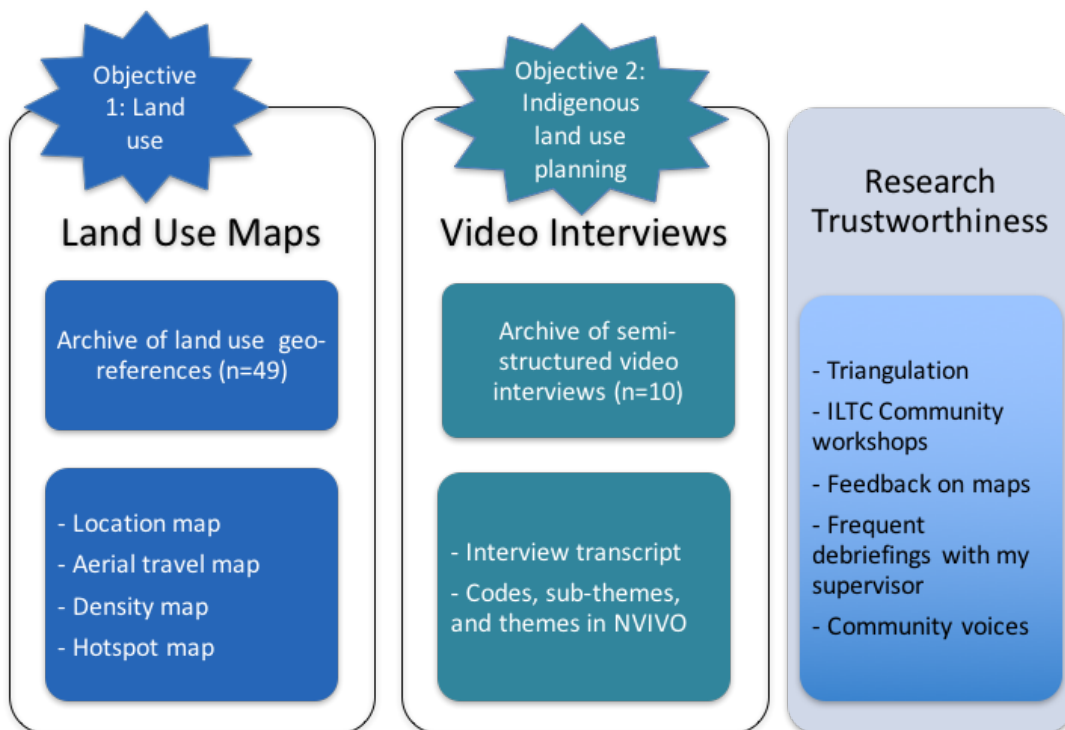


Figure 2. Summary of research methods.

3.2 Data Collection Methods

I used secondary data collected through two research methods: land use mapping and semi-structured video interviews. Dr. Thompson, my faculty supervisor, provided the GIS database of land use of 49 Wasagamack harvesters, archived video interviews and other related video footage, from 2013 to 2016, after approval by chief and council when I presented my draft research proposal in 2017 for their input.

3.2.1 Land use mapping. GIS data, with the latitude, longitude, and type of land use of Wasagamack First Nation, shown in Microsoft Excel and ArcGIS shapefiles, were supplied by Mr. Rezaur Rahman, who inputted the data and made some maps, and Dr. Thompson. The GIS data was an output of a mapping process that began after community members engaged in a 60-hour long 'First Nation Use-and-Occupancy Map Survey Workshop: Research Design and Introduction for Interviewers', held at the University of Manitoba, May 6th to 10th, 2013. Appendix A includes the questionnaire for the map biography interview; Appendix B identifies the community members interviewed. Victor Harper, Johnathan Harper, Nora Whiteway and, occasionally, Dr. Thompson, interviewed 49 community members individually about the locations, in the base maps, used for different activities in their traditional territory.

3.2.2 Semi-structured video interviews. Video interviews captured community priorities and the significance of community-led land use planning approach. Interviews explore participants' reflexivity by asking questions that prompt sharing of experiences (Kindon, 2016), with information collected via video camera (Jewitt, 2012).

Video footage included: semi-structured interviews, map biography interviews, Elders gathering, community workshops, and scenes of community surroundings and activities.

Footage was coded for future reference. Video interviews of ten community members (six males and four females) were selected for transcription and analysis: Alex McDougall, past Chief; Alfred McDougall, Elder and past Chief; Cecilia Harper, community member and teacher; Gary Knott, community member and nursing station staff; Harvey Dale Harper, head trapper; Jerry Knott, Elder and past Chief; Mary Wood, Elder; Nora Whiteway, Elder; Sharon Mason, past Chief; and Victor Harper, Elder and past Chief. Interviewing ceased at the point of saturation at which substantial new insight was not being gained (Marshall, Cardon, Poddar, & Fontenot, 2013). In the Indigenous research paradigm, participant numbers are less critical than the depth and breadth of their experiences (Wilson, 2008). Between 8 - 12 interviews are considered the minimum number to explore a community perspective (Hesse-Biber, 2010; Marshall et al., 2013).

Video interview consent forms were signed, acknowledging the interviewee's willingness to disclose his/her name and identity in the videos and reports (Appendix C). A common guide was used for each interview (Appendix D), which spanned 20 to 30 minutes. Follow-up interactions were conducted with Elders Victor Harper and Nora Whiteway. Along with Victor and others from Wasagamack and ILTC, I attended a two-day ILTC Land Use Planning Training Workshop at Buffalo Point, April 19th and 20th, 2017. A number of meetings and interactions with Victor and Nora, coupled with workshop participation, enlightened why Wasagamack community members need control over their traditional territory through Indigenous planning and governance and to guide and provide feedback on my research.

3.3 Data Analysis

The analyses of land use data in ArcGIS and interview data in NVIVO are described in the following subsections.

3.3.1 Analysis of land use data. The land use data were organized into seven themes: fishing, trapping, cultural activities, hunting, overnight stay, plant and earth material collection, and birds and eggs harvesting. Data was analyzed using:

- ArcGIS online – hotspot and density analysis (density mapping, and hotspot mapping of each of the seven thematic land uses and overall land use); and
- ArcGIS desktop version 10.4.1 (North American Datum 1983 (NAD83) Universal Transverse Mercator (UTM) Zone 14 projection system) – cartography of ArcGIS online layers; location mapping and aerial distance calculations.

Location mapping spatially presented the land use data and provided observations of the distribution of land uses in the traditional territory. To see the land use in relation to the Wasagamack reserve and registered traplines, shapefiles of First Nation reserves and Island Lake traplines were downloaded from Manitoba Land Initiatives (mli2.gov.mb.ca). In ArcGIS Desktop, location maps were produced by importing the longitude and latitude data of the land use from the excel file. In addition to the location maps, the aerial distance from Wasagamack First Nation reserve to the farthest land use locations in all directions was calculated for overall land use. The land use locations were overlaid with the Wasagamack registered traplines and the reserve.

ArcGIS online was used for density and hotspot mapping using the default parameters. Density mapping, which provides the spatial relationship of a variable over the landscape by

showing the concentration of points or lines per square unit (ESRI, 2016), was used to pinpoint concentrated land uses in the territory. The variable, in this case, is the location of land use. Density mapping tools offer line, point and kernel density functions (CEHI, n.d.-b).

For this research, kernel density mapping was selected to map the pattern of changing landscapes from point or line locations (Shafabakhsh, Famili, & Bahadori, 2017). The kernel function creates regular density areas from point data in raster form, allowing for hotspot analysis and interpolation (Krisp, Peters, & Murphy, 2009). Kernel density maps show circular areas around each feature point to indicate density, such as the location of land use, by applying the kernel function to each observation (Shafabakhsh et al., 2017). The mathematical equation of kernel density is:

$$f(x, y) = \frac{1}{nh^2} \sum_{i=1}^n K\left(\frac{d_i}{h}\right)$$

where h is the bandwidth, d_i is the distance of the variable from the center in the bandwidth, K is the function of the kernel density, n is the number of observations (Shafabakhsh et al., 2017).

Hotspot mapping identified whether the distribution of the land use spot was random or significant. The null (H_0) and alternative (H_1) hypotheses were:

H_0 : At 95% level of confidence, the distribution of overall and specific land use of 49 Wasagamack community members in their traditional territory was random i.e. the hotspots were non-significant.

H_1 : At 95% level of confidence, the distribution was significant i.e., significant hotspots.

Unlike density mapping, hotspot analysis provides information about the locations that are statistically significant, such as hot and cold spots (CEHI, n.d.-a; Krisp et al., 2009). The

importance of hotspot mapping over density mapping is that density mapping only provides information about the clustering of the points or locations but not whether the clustering is statistically significant (CEHI, n.d.-a). Hotspot analysis maps the clusters based on the Getis-Ord G_i^* function and calculation of kernel density (Prasannakumar, Vijith, Charutha, & Geetha, 2011). Hotspot mapping uses Z-scores and P-values to indicate if the clustering is a significant hotspot (Prasannakumar et al., 2011). For example, a high Z-score and small P-value show a significant hotspot (Prasannakumar et al., 2011). The mathematical equation of the hotspot function is:

$$G_i^*(d) = \frac{\sum_j W_{ij}(d)x_j - W_i^* \bar{X}^*}{S^* \{[(nS^*1i) - W_i^{*2}]/(n-1)\}^{1/2}}$$

where ' $W_{ij}(d)$ ' is a spatial weight vector with values for all cells 'j' within a distance 'd' of target cell 'i'; W_i^* is the sum of weights; S^*_{1i} is the sum of squared weights; and s^* is the standard deviation of the data in the cells (Prasannakumar et al., 2011).

3.3.2 Analysis of semi-structured video interviews. Video interview analysis included data (interview text) preparation through transcripts, formatting, coding, categorizing, theme generation and synthesizing (Jamieson, 2016). Interviews were transcribed in Microsoft Word; the resulting transcripts were analyzed using NVIVO 11. Word frequency query involved discarding the very common or irrelevant words to prepare the word clouds.

Transcripts were coded by using the key words or phrases spoken by the community members. Key words/phrases chosen, for example, included, "can't go to my trapline" in reference to the impact of mining and "I can do better than the hydro" from an Elder's critique of Manitoba Hydro undermining community priorities. Community priorities were also evident

in the statement “train youths and fix our houses.” An Elder reinforced the importance of land in going to gather “berries, fish and rabbits” to feed her family. Using community wording is believed to minimize researcher manipulation of ideas and words, allowing readers to hear the voices of community members (Chilisa, 2012).

Themes and sub-themes were generated on the basis of the codes. Interview responses often unfolded as stories and, as such, are presented in this fashion in the results. This format is supported by Wilson’s (2008) third category of story-telling styles: essentially, the sharing of personal experiences, perspectives of the community members and interactions with the community members. Stories are effective oral traditions to transfer Elders’ experiences and messages to the younger generations (Smith, 2001).

3.4 Ethical Considerations

Establishing trust and communication with research communities is essential in qualitative research (Davidson-Hunt & Michael O’Flaherty, 2007). These were accomplished by offering assistance to ILTC and community coordinators for printing the base maps required by the ILTC and community coordinators for their land use planning project and in videotaping an Elders gathering in Winnipeg, June 16th & 17th, 2017.

The research was approved by the Human Ethics Board of the University of Manitoba. At the community level, I shared my research concept and objectives at the Wasagamack Chief and Councils meeting, May 26th, 2017, Canad Inns Polo Park, Winnipeg. The participants were Chief, Alex McDougall; Councilor, Violet Harper; Councilor, Virginia Harper; and community member, Ernie Harper. The group accepted the proposed research, suggesting that existing information be used to retain documentation and analysis. Upon this acceptance, I was

included under the SSHRC ethics of Dr. Thompson. The ownership of the research is with Wasagamack community members who shared their knowledge.

Wasagamack Chief and Council and the community members interviewed have given consent to share critical information publically. Community members interviewed have received credit for their participation; their names and quotations lend richness and authenticity to the results section as they provided consent to disclose their names. These ethical considerations fulfill the importance of ensuring 'relational accountability' in Indigenous research paradigms (Wilson, 2008, p 99) to present the results by distinctly acknowledging the community members who shared their knowledge and wisdom (Simonds & Christopher, 2013; Wilson, 2008).

3.5 Research Trustworthiness

Mainstream research perspectives examine the trustworthiness of research through the lenses of validity and reliability (Shenton, 2004). Smith (2001), however, argues that the mainstream research approaches are inadequate to validate Indigenous views and innovation to describe, reliably, Indigenous ways of living. This research has recognized these differences and credited the participating community members; the codes and sub-themes were derived from interviewees' comments to reflect the community contexts. Interaction with Elders and analyses of results are instrumental in establishing a relationship with Wasagamack community members and in thinking about how the research benefits the community, which are important aspects of an Indigenous research paradigm (Wilson, 2008).

Both the quantitative and qualitative information have complemented each other in presenting the comprehensiveness of community land use and community priorities. The video

interviews support the findings of land use data and further provide ways for how future development should happen to continue their traditional land use activities. For example, to support the distribution of land use locations over the traditional territory, community members interviewed described the significance of land and territory for Wasagamack; likewise, the land use maps also back up community members' desire to plan and reclaim their territory, demonstrating the complementarity of mixed-method approach of inquiry (Cresswell, 2014; Hesse-Biber, 2010). Besides, the interviews triangulate the land use of community members and signify the importance of traditional territory for the *Mino Bimaadiziwin* of Wasagamack people.

Location maps were shared at the ILTC Land Use Workshop, Buffalo Point and an Elders gathering, Winnipeg. Elders reviewed the land use maps and provided feedback and approval at that time. I also engaged in regular twice weekly meetings with Dr. Thompson. Research findings were shared with several community members to elicit feedback. Sharon Mason, a video interviewee and regional land use planning coordinator at ILTC, attended my thesis defense seminar and advised caution in interpreting the density and hotspot maps, as these are subject to change over time. Her suggestions are duly addressed in the results and discussion sections. Each map is labelled with a disclaimer stating: "The map is draft for community use only based on limited participants."

Chapter IV: Results and Discussion

This chapter presents and discusses the research results on the Wasagamack First Nation's traditional land use, community priorities and significance of Indigenous land use planning in five sections. In the first section, land use maps reveal the results and discussion of the spatial analysis of the traditional territory occupied and used by 49 Wasagamack community members for food, shelter and cultural purposes. The second section argues for policy implications of land use in the context of community-led management. The third section delineates the voices of 10 community members discussing community development priorities and the significance of Indigenous land use planning to the Wasagamack First Nation. This section also discusses both the strengths of and barriers faced in achieving these priorities. Policy considerations for strengthening Indigenous land use planning are explained in the fourth section. The final section reflects how community members' access to and control over their traditional territory through Indigenous land use planning and governance is essential for the long-term use and protection of Wasagamack traditional territory for *Mino Bimaadiziwin*.

4.1 Land Use of Wasagamack Community Members

Land use summary, density and hotspot maps depict the traditional territory and important land use locations for 49 Wasagamack members, out of the total population of 1,405, residing in 285 houses (StatsCanada, 2017). Figure 3 is the summary land use map of their traditional territory indicating locations of fishing, trapping, cultural ceremonies, hunting, overnight stay, plants/earth material collection and bird hunting/egg harvesting. Wasagamack people travel extensively within this territory (Figure 4); journeys from the reserve to a maximum of 136 km in the west are undertaken to conduct traditional activities. The actual

distance traveled is higher than the aerial distance as walking and canoeing are required to reach specific destinations. The distribution of traditional land use sites covers, and extends beyond, Wasagamack's registered trapline areas, particularly east of Island Lake up to the west in Ontario and areas further west to Stevenson Lake (Figure 5).

The use of the traditional territory by the community members is consistent with the Inuit Land Use and Occupancy Project that covered 34 Inuit communities and mapped the lands used and occupied by Inuit for hunting, trapping, fishing, camping, ceremonial sites, burial grounds and other areas of historic importance in the Northwest Territories and northern Yukon (Freeman, 2011). These land use and occupancy maps were initially individual map biographies, then became composite maps illustrating the areas of 'past and then-present' hunting, fishing, trapping activities, and other activities as mentioned above (Freeman, 2011, p. 22).

Extensive use of traditional territory for hunting and gathering was evident in the land use documentation and in the layering the land use studies in the Ouje-Bougoumou Cree communities in James Bay, Quebec, (Tsuji et al., 2007) and the Omushkego Cree communities of Mushkegowuk region, northern Ontario (Berkes et al., 1995). Tsuji et al. (2007) prepared 14 intensity maps and sites of concern and 11 thematic harvesting and gathering maps. They found the Cree communities actively using their traditional territory. They also categorized the territory into: Category one traplines – no contaminants from mining, category two traplines – likely contact to contaminants and category three traplines – contact to contaminants. Berkes et al. (1995) estimated that around 250, 000 square kilometers (sq. km) of the Omushkegowuk traditional territory was used for fishing and hunting goose, caribou and moose.

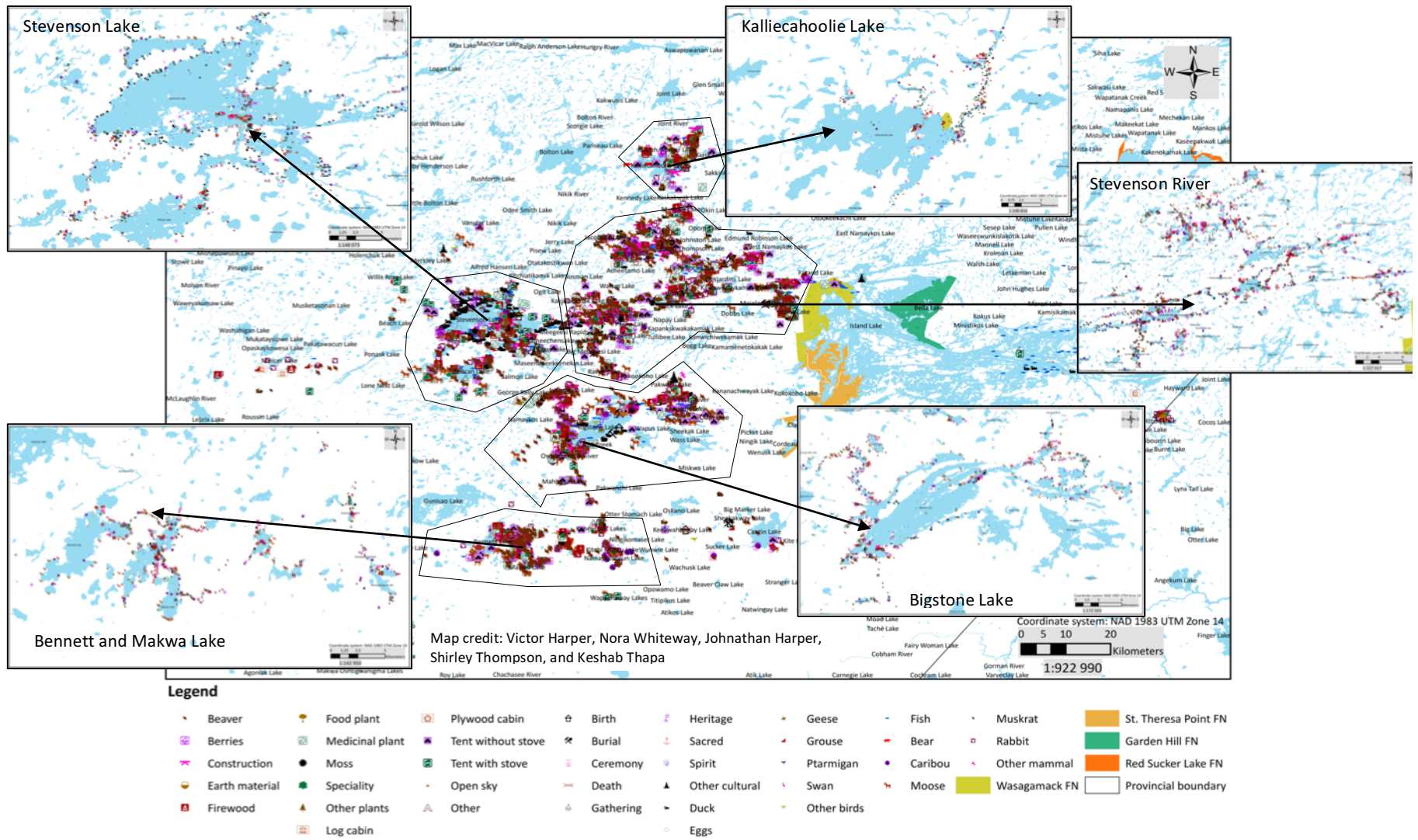


Figure 3. Overall land use map of 49 Wasagamack community members in their traditional territory

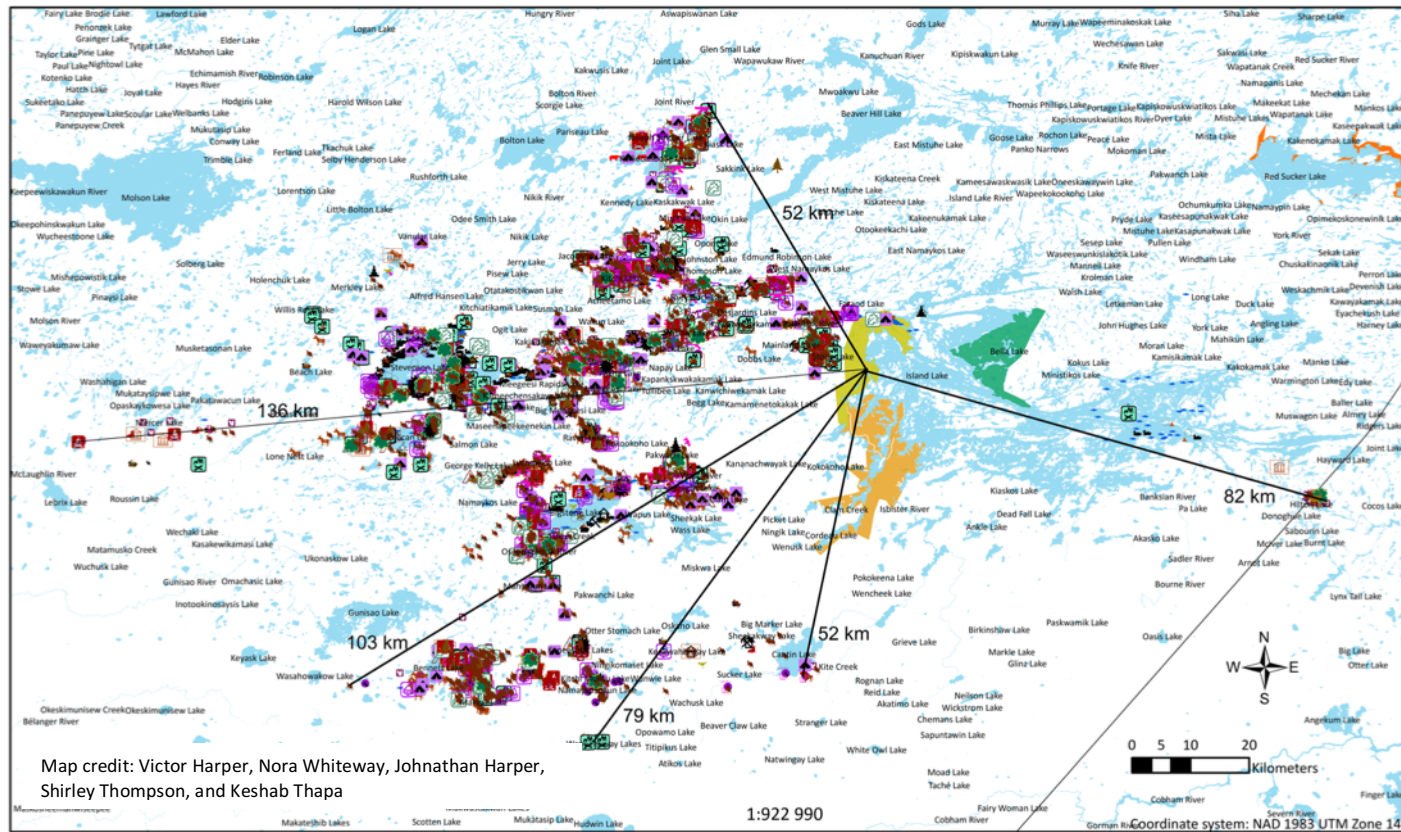


Figure 4. Aerial distance traveled by 49 Wasagamack community members in their territory.

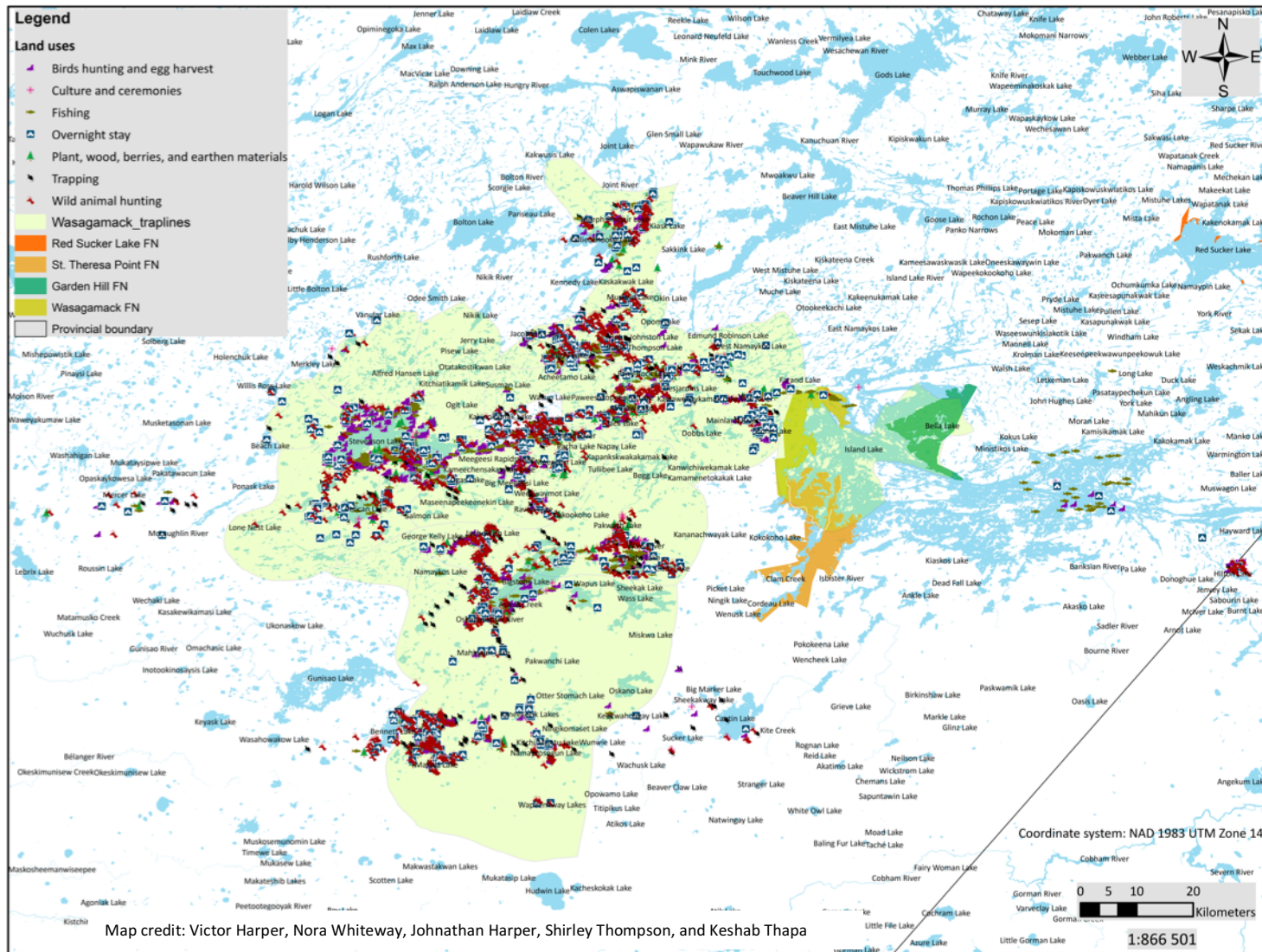


Figure 5. Overall land use of 49 Wasagamack community members with Wasagamack registered trawls.

The density map (Figure 6) shows the territory's land use concentration. The density value is presented for different land use themes as minimum and maximum values for each land use per 100 sq. km. The overall density map shows evidence of high density land use around Stevenson Lake, Pelican Lake, Bigstone Lake, Gunisao River, Bennett Lake, Makwa Lake, Knight Lake, Stevenson River (*Matawkamang*), Willow Lake, Fairy Rock Lake, Mainland River, Kitchi Lake, Muskwa Lake, Kalliecahoolie Lake, Amos Lake and Joint River. The density values in these areas ranged from 575 to 950 land use sites per 100 sq. km area.

The hotspot map (Figure 7) indicates whether the overall (combining all land uses) land use concentrations were random (null hypothesis) or significant (alternative hypothesis). Of the 1110 hotspots (2 sq. km each) identified from the 49 respondents, all land use hotspot analysis showed 149 significant hotspots at 99% confidence level, 36 significant hotspots at 95% confidence level and 11 hotspots at 90% confidence level. The statistically significant land use hotspots are in and around Bennett Lake, Gunisao River, Makwa Lake, the area north of Makwa Lake and Namaykosogun Lake as well as the areas of Mahingun Lake, Kaneesotik Lake, Wakun Lake, Stevenson River, Jack Lake, Deer Rapids, Strip Rapids, Wapaskank Narrows, Willow Lake, Kitchi Lake, Joseph Sinclair Lake, Namaykos Lake, and Kiask Lake. These hotspots represent a minimum of one harvest or site to a maximum of 86. As the area of each hotspot is 2 sq.km, a hotspot with a single land use location can be statistically significant due to the clustering of the location with others in the adjoining hotspots. Hotspots were significant at 95% level of confidence for fishing, trapping, hunting, bird/egg harvesting, and habitation, meaning that land uses are statistically significantly more concentrated in these areas.

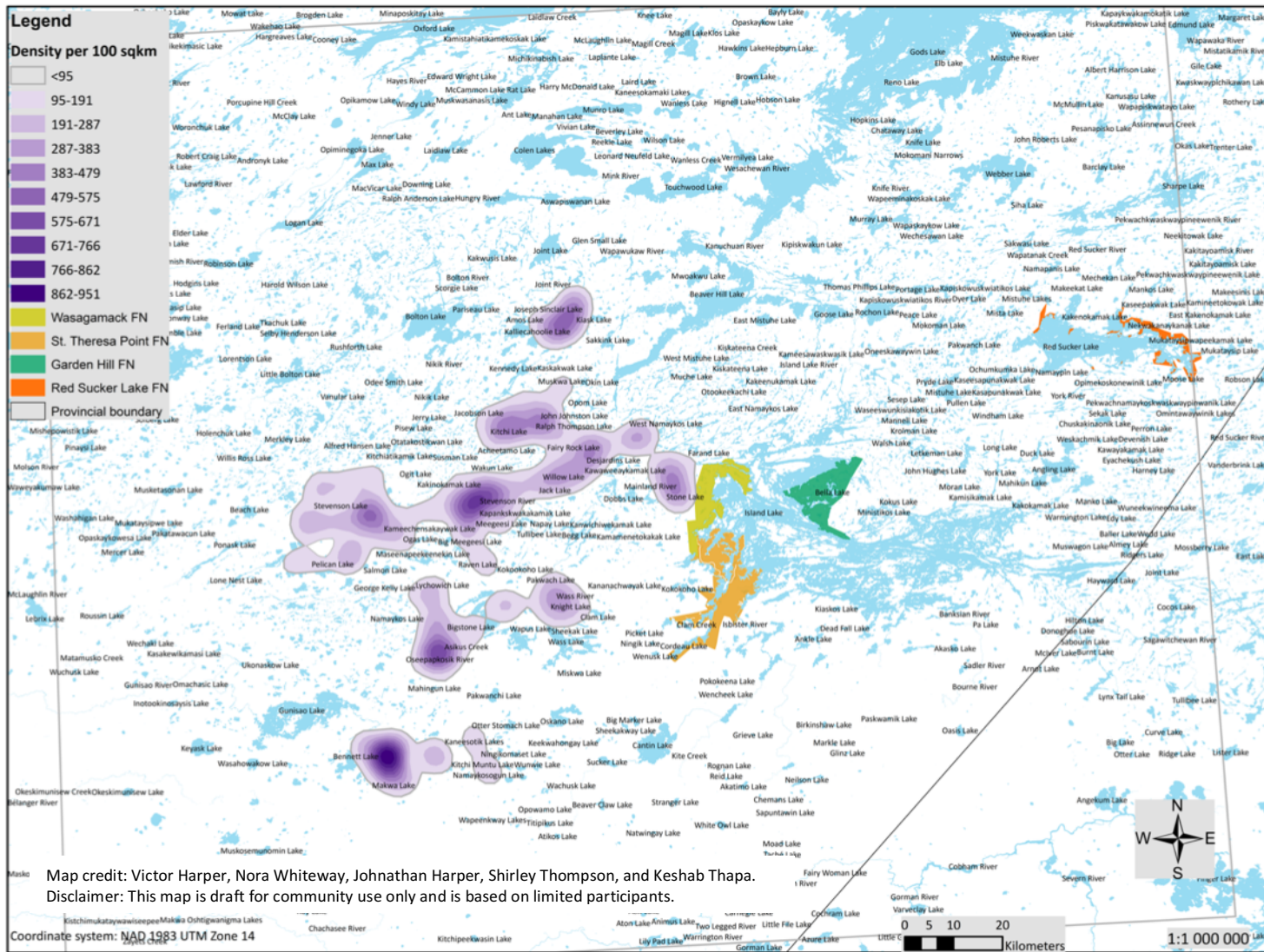


Figure 6. Density map of land use of 49 Wasagamack community members.

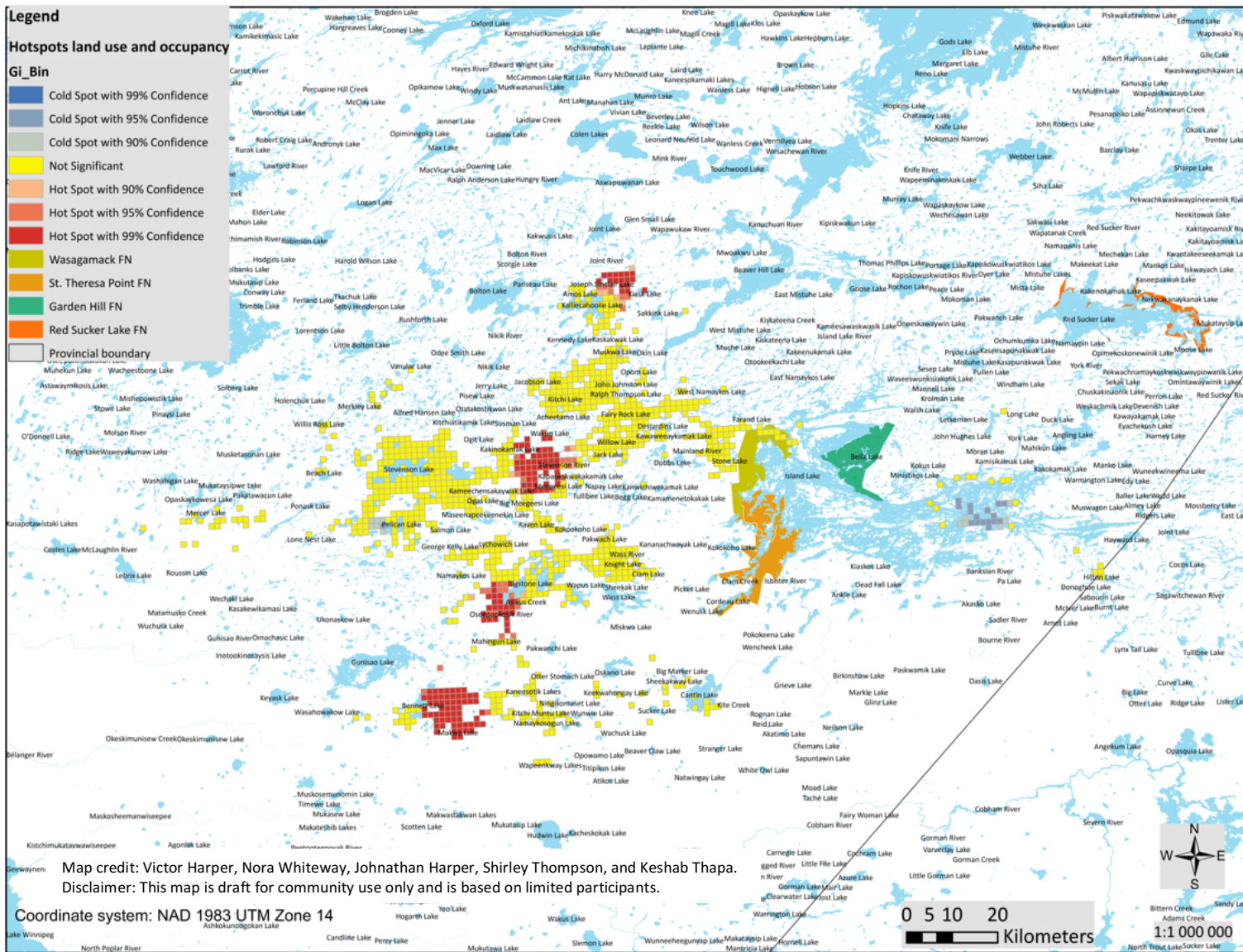


Figure 7. Hotspot map of land use and occupancy of 49 Wasagamack community members.

4.1.1 Location, density and hotspots of fishing sites. Figure 8 presents fish harvesting sites for the sustenance of 49 community members: Island Lake in the east, Mercer Lake in the west, Amos Lake in the north and Makwa Lake in the south. The density map shows most of the fish capture occurred on Stevenson Lake, Stevenson River, Bigstone Lake, Knight Lake, Gunisao River, Kitchi Lake, Fairy Rock Lake and Kalliecahoolie Lake (Figure 9). Fishing hotspots are statistically significant around Bennett Lake, Gunisao River and Makwa Lake at 95% level of confidence and around Knight Lake at 90% level of confidence (Figure 10).

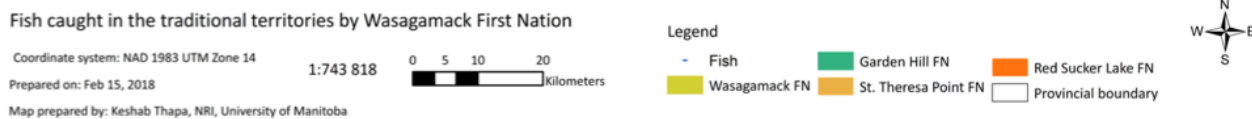
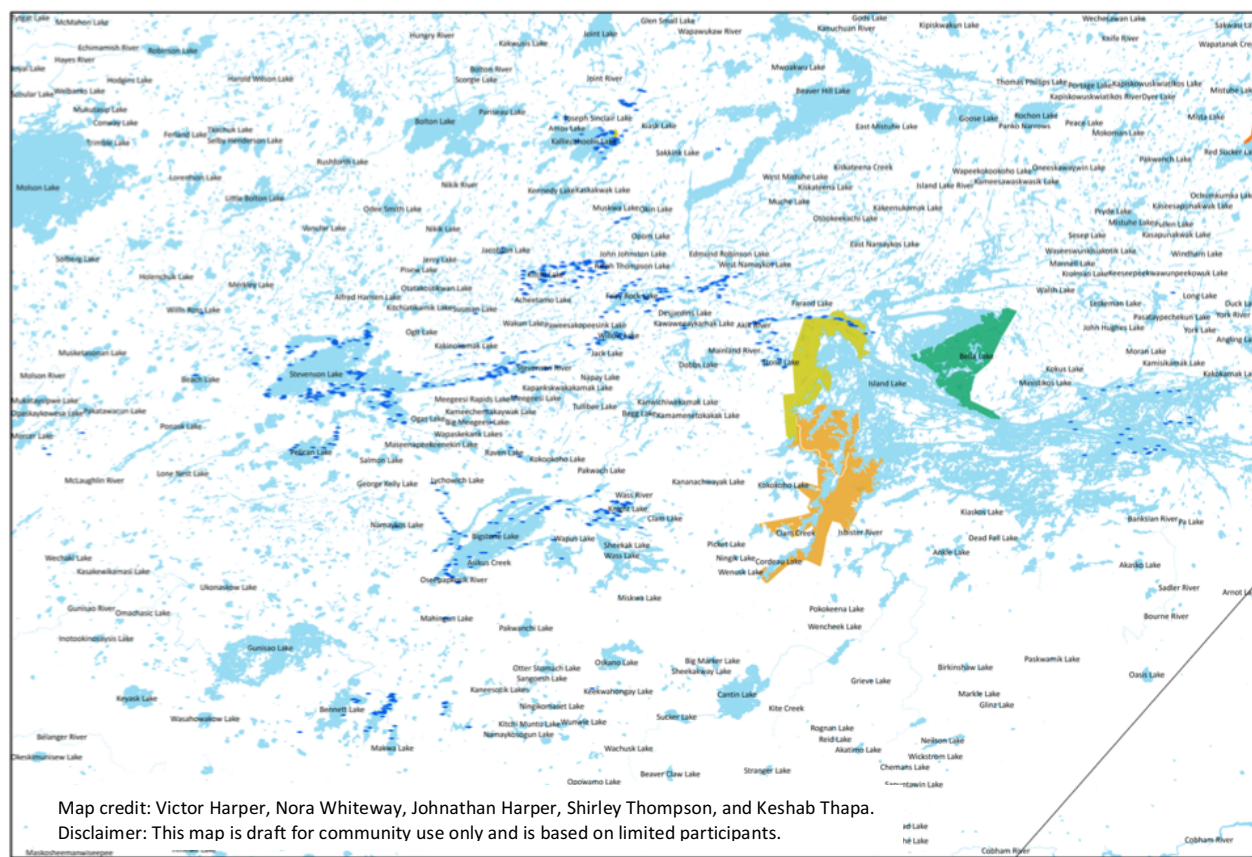


Figure 8. Locations of fishing sites for the sustenance of 49 Wasagamack community members.

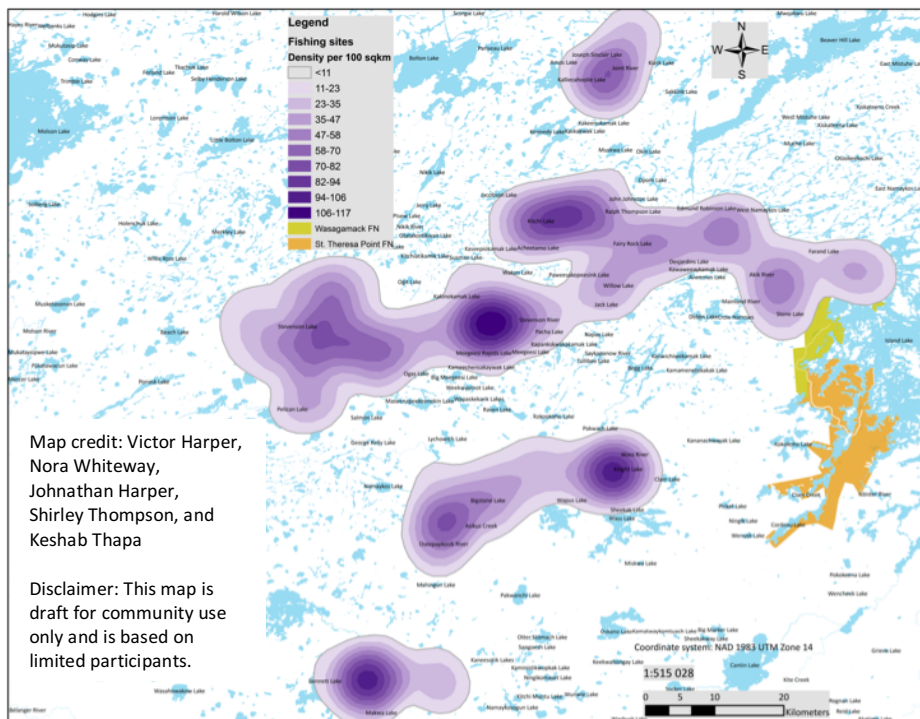


Figure 9. Density of fishing sites for the sustenance of 49 Wasagamack community members

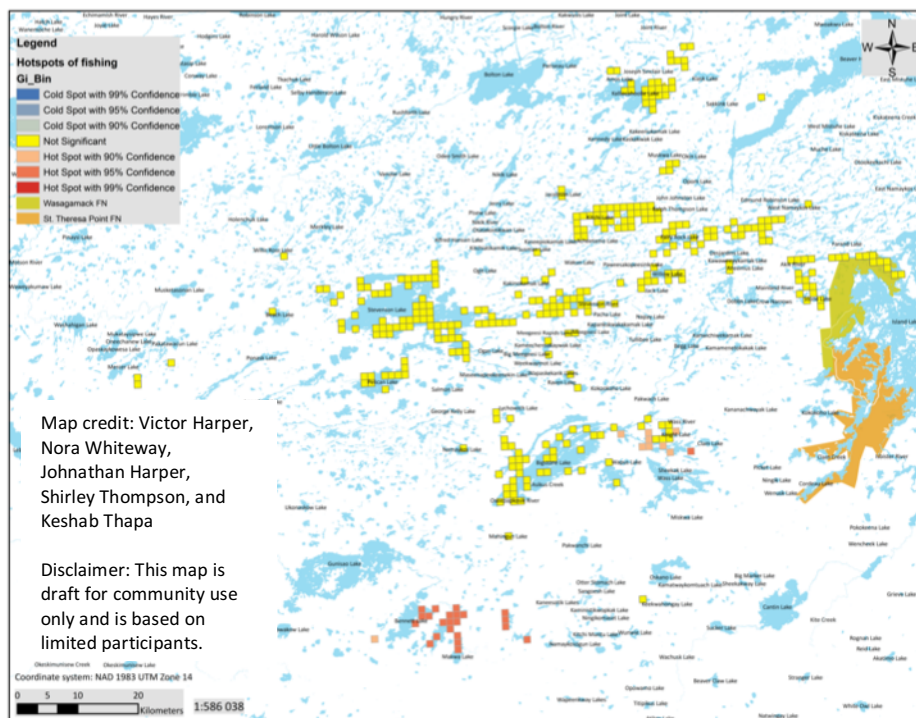


Figure 10. Fishing hotspots for the sustenance of 49 Wasagamack community members.

4.1.2 Location, density and hotspots of trapping. The Wasagamack trapline region extends to nearby Mercer Lake in the west, Hilton Lake in the east, Joseph Sinclair Lake in the north and Makwa Lake and Kite Creek in the south (Figure 11). Density analysis shows that trapping is most evident in Bennet Lake, Makwa Lake, Stevenson River, Mainland River, Kitchi Lake and Oseepapkosik River (Figure 12); hotspots marked around Bennett Lake, Gunisao River, and Makwa Lake are statistically significant at 99% level of confidence (Figure 13).

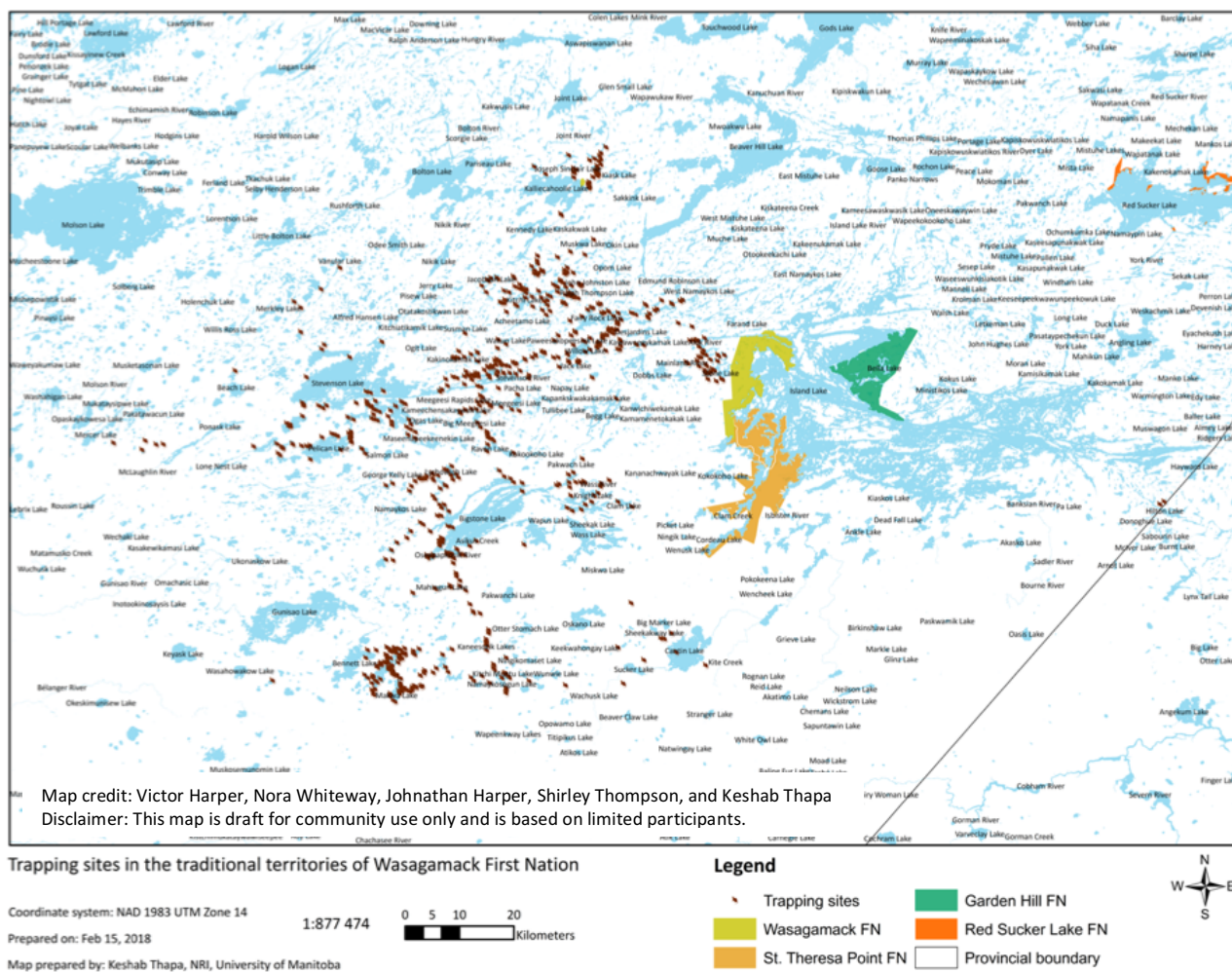


Figure 11. Trapping locations of 49 Wasagamack community members in their traditional territory.

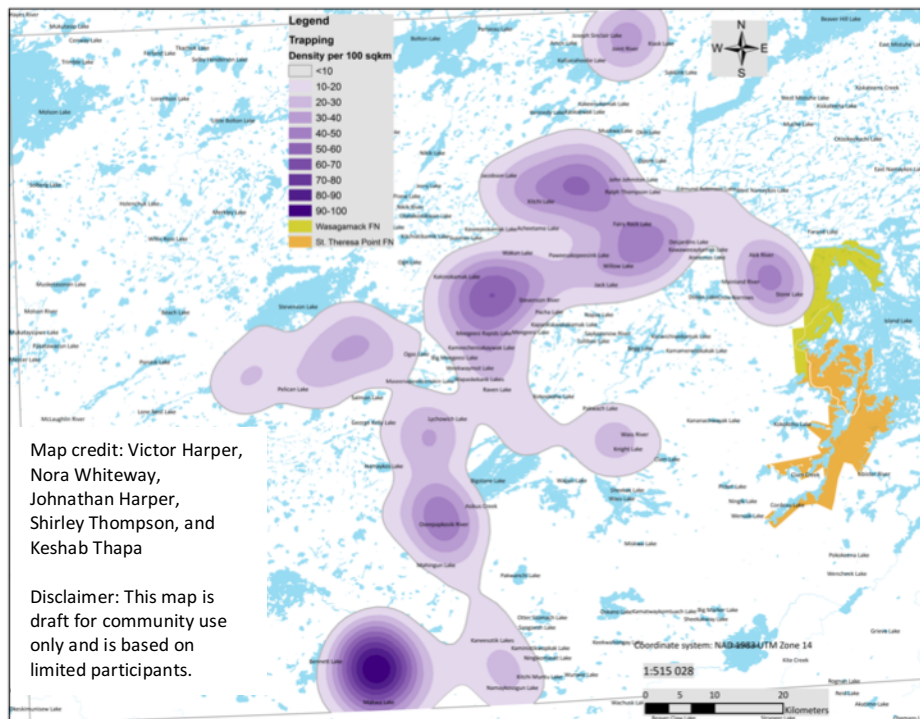


Figure 12. Density of trapping sites of 49 Wasagamack community members.

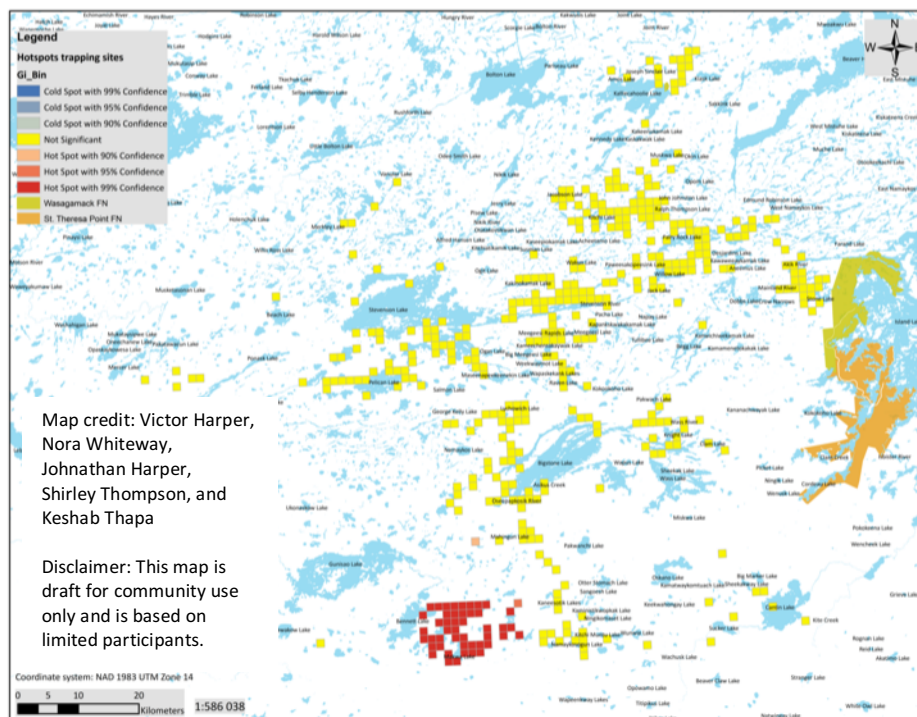


Figure 13. Trapping hotspots of 49 Wasagamack community members.

4.1.3 Location of cultural sites. Cultural sites, many of which are sacred, include locations for ceremonies, spirituality, and many other cultural activities. Most sites are near Kalliecahoolie Lake, Fairy Rock Lake, Stevenson Lake, Stevenson River, Bigstone Lake and Gunisao River (Figure 14). Not all harvesters wanted to share their all cultural sites, considered the entire territory sacred and culturally significant, fearing that mapping may expose the sites for exploitation and damage by outsiders. Overall, similar to other land uses, the cultural sites are distributed: up to Pelican Lake in the west; Gunisao River and Cantin Lakes in the south; Amos Lake and Namaykos Lake in the north; Island Lake, Hilton Lake, McIver Lake and Arnot Lake in the east. Density and hotspot analyses were not performed separately for cultural sites as the entire territory is sacred and culturally significant.

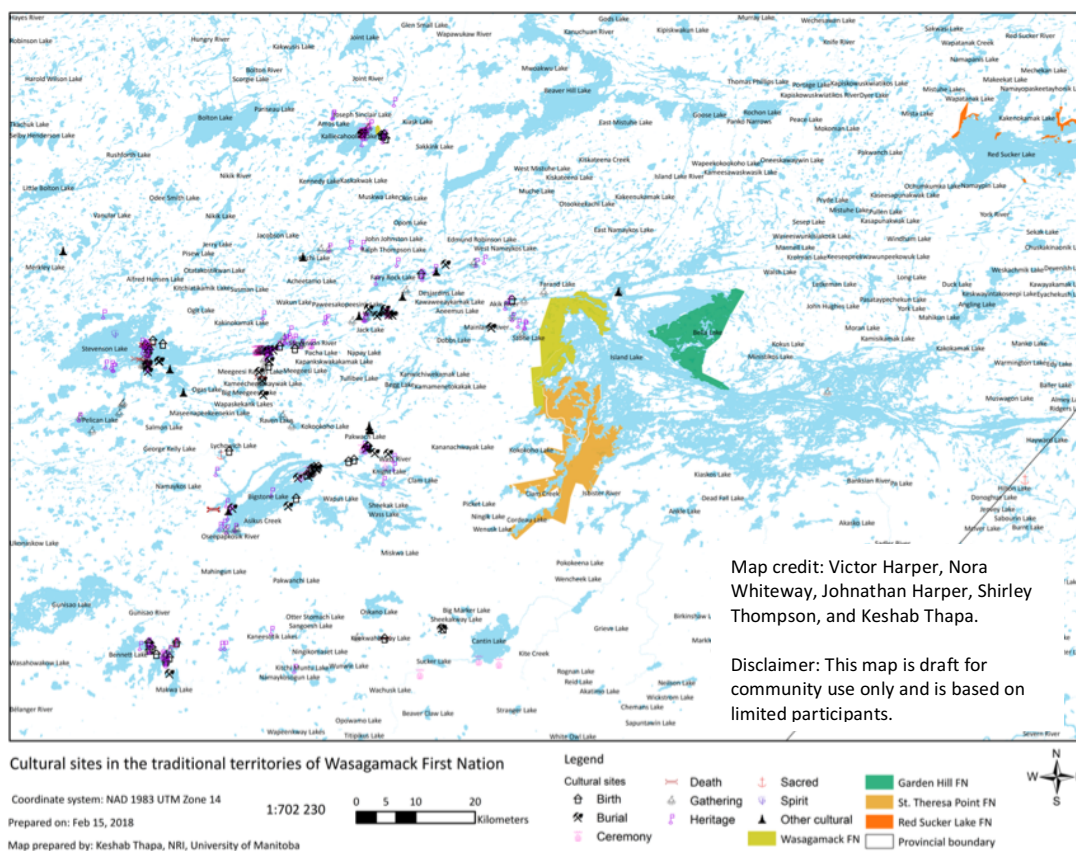


Figure 14. Cultural sites of 49 Wasagamack community members in their traditional territory.

4.1.4 Location, density and hotspots of animal hunting sites. Figure 15 shows specific sites where animals, including moose, caribou, muskrat and rabbit, are hunted for food in the traditional territory of Wasagamack First Nation. These include: around Pakatawacun Lake in the west, Hilton Lake in the east, Wapeenkway Lakes in the south and Namaykos Lake in the north. Figure 16 reveals specific sites: in and around Muskwa Lake, Kitchi Lake, Fairy Rock Lake, Stevenson River, Mainland River, Stevenson Lake, Pelican Lake, Bigstone Lake, Knight Lake, Bennett Lake and Makwa Lake. Statistically significant hunting hotspots are observed in Makwa Lake, Bigstone Lake, Oseepapkosik River and Stevenson River at 99%, 95% and 90% confidence levels, respectively (Figure 17).

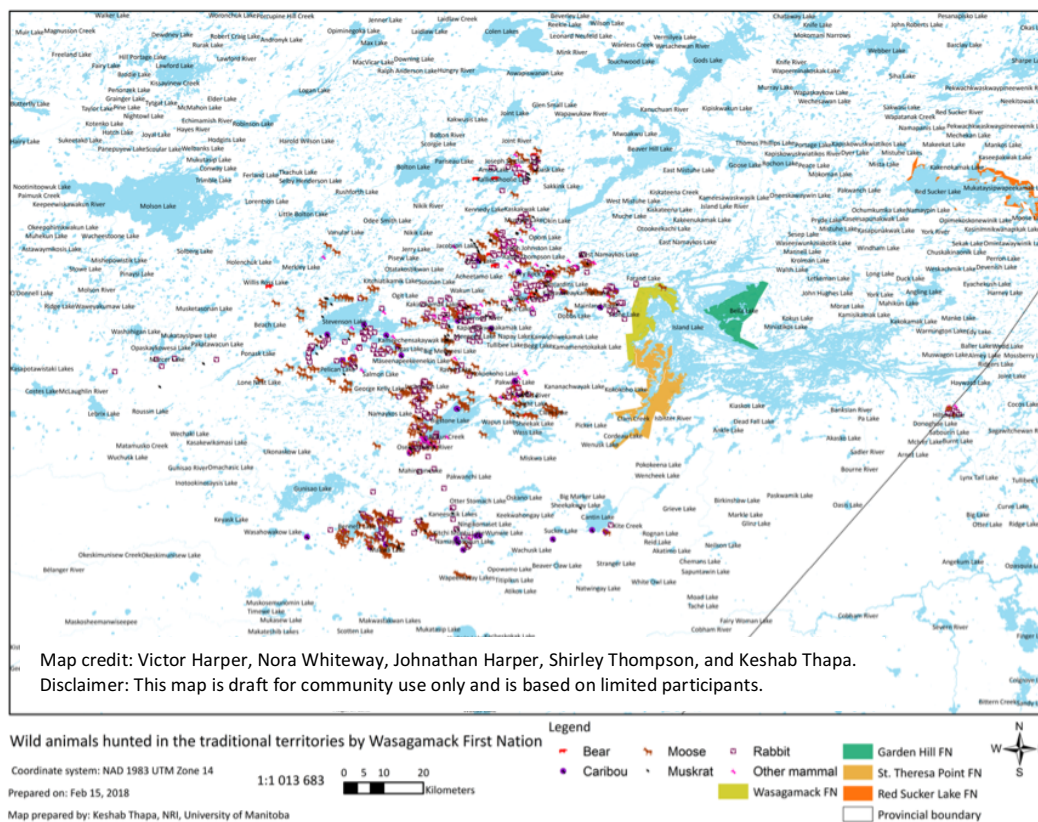


Figure 15. Hunting sites for sustenance of 49 Wasagamack community members.

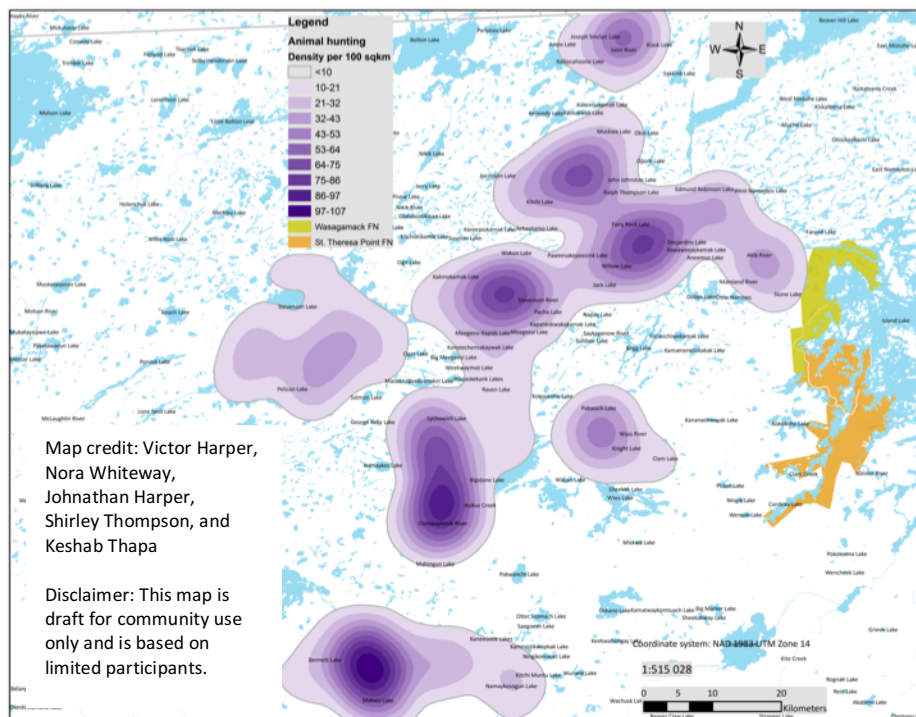


Figure 16. Density of sustenance hunting sites of 49 Wasagamack community members.

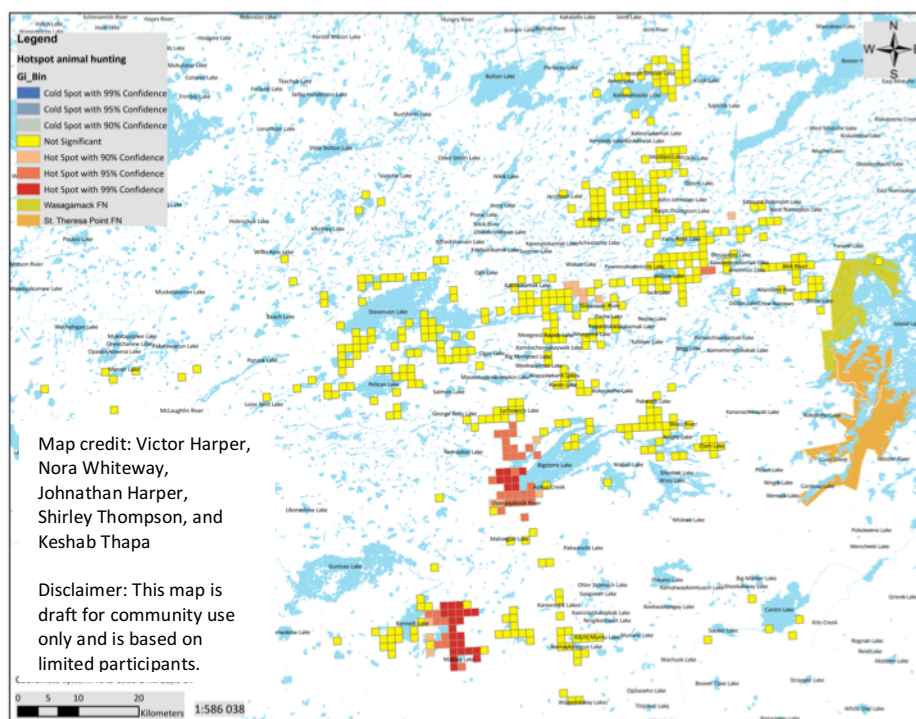


Figure 17. Sustenance hunting hotspots of 49 Wasagamack community members.

4.1.5 Location, density and hotspots of overnight sites. Figure 18 indicates the overnight sites used for overnight stays of at least one night, to hunt, heal, travel, organize ceremonies and educate their people (Figure 18). The habitation sites – comprising log/plywood cabins, tents with/without stoves, open sky - signify residence in the territories by individuals alone or, typically, with families, relatives and friends. Tents with stoves and under the open sky were most popular among the members interviewed. Figure 19 shows the density maps of overnight sites: Bennett Lake, Bigstone Lake, Stevenson River, Stevenson Lake, Kitchi Lake and Kalliecahoolie Lake. Overnight sites are distributed up to Lebrix Lake in the west, Wapinkway Lakes in the south, Hilton Lake in the east and Namaykos Lake in the north. Statistically significant hotspots for overnight sites are observed in Makwa Lake and Bennett Lake, at 99% and 95% confidence levels, respectively (Figure 20).

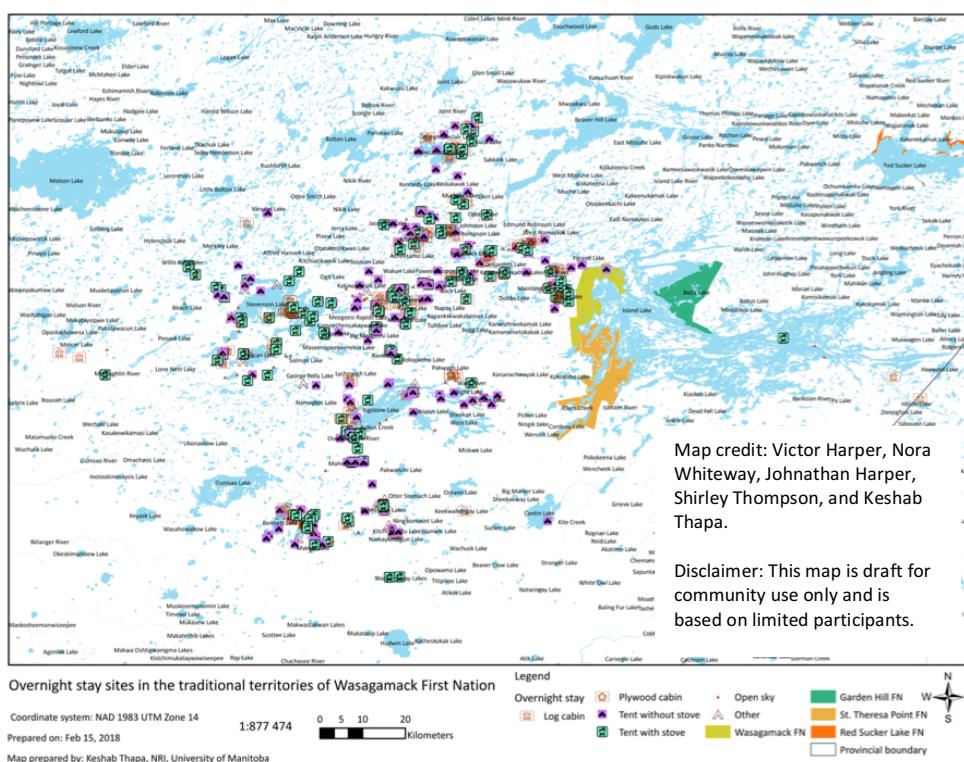


Figure 18. Overnight sites of 49 Wasagamack community members.

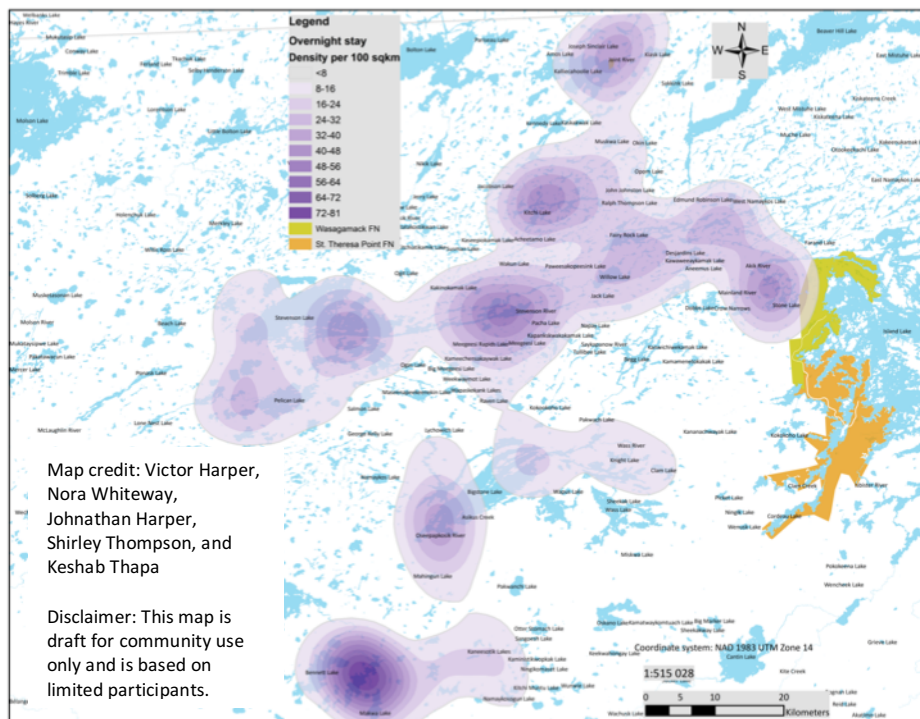


Figure 19. Density of overnight sites of 49 Wasagamack community members.

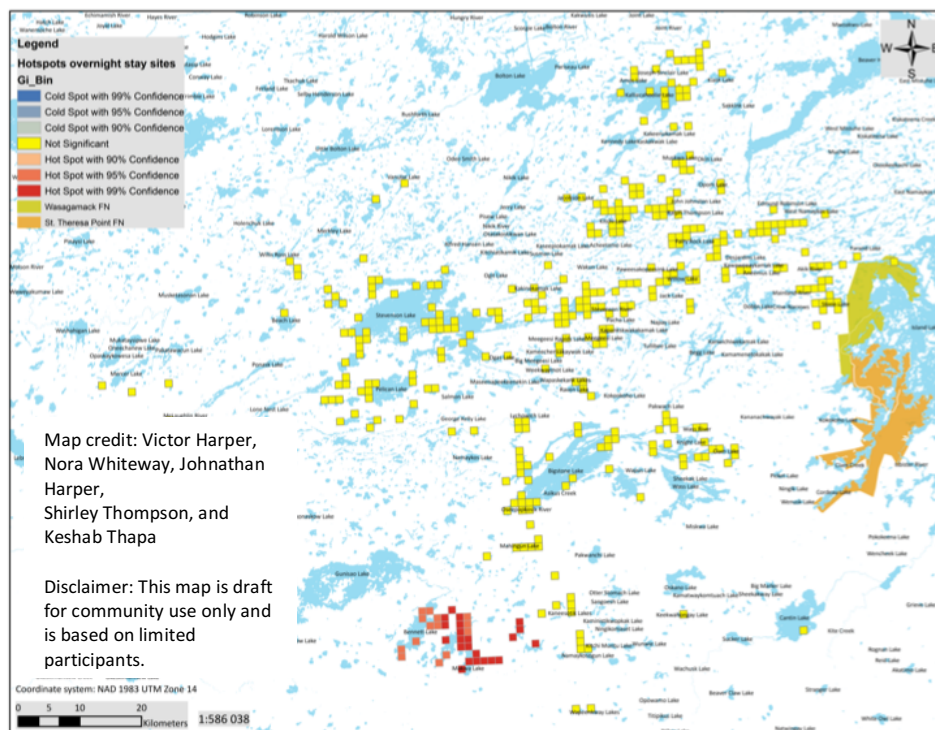


Figure 20. Hotspot analysis applied to habitation sites of 49 Wasagamack community members.

4.1.6 Location, density and hotspots of plant, wood and earth material collection.

Figure 21 shows that the traditional territory is used for harvesting plants for food/medicine and collecting woods and earthen materials for sustainable housing, heating and cooking. The sites concentrate around Kalliecahoolie Lake, Kitchi Lake, Stevenson River, Mainland River, Stevenson Lake, Bigstone Lake, Knight Lake and Bennett Lake (Figure 22). Hotspot analysis shows no statistically significant hotspots (Figure 23). This finding may be a result of the great majority of the respondents being male. Women’s roles in Wasagamack tend to focus more on berries harvesting than do men’s, which may explain why fewer spots appear collectively, rather than for the other land uses and with no statistically significant hotspots.

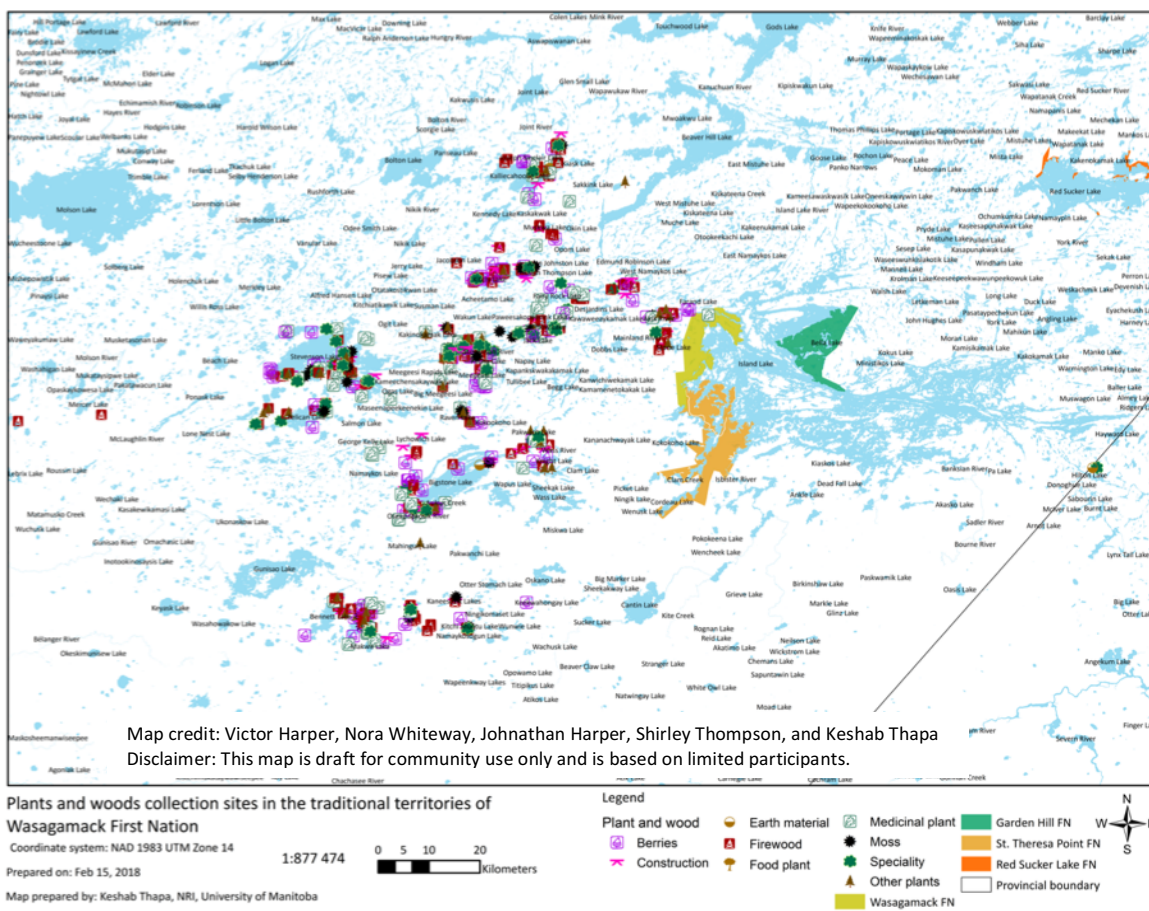


Figure 21. Plant, wood and earth material collection sites of 49 Wasagamack community members.

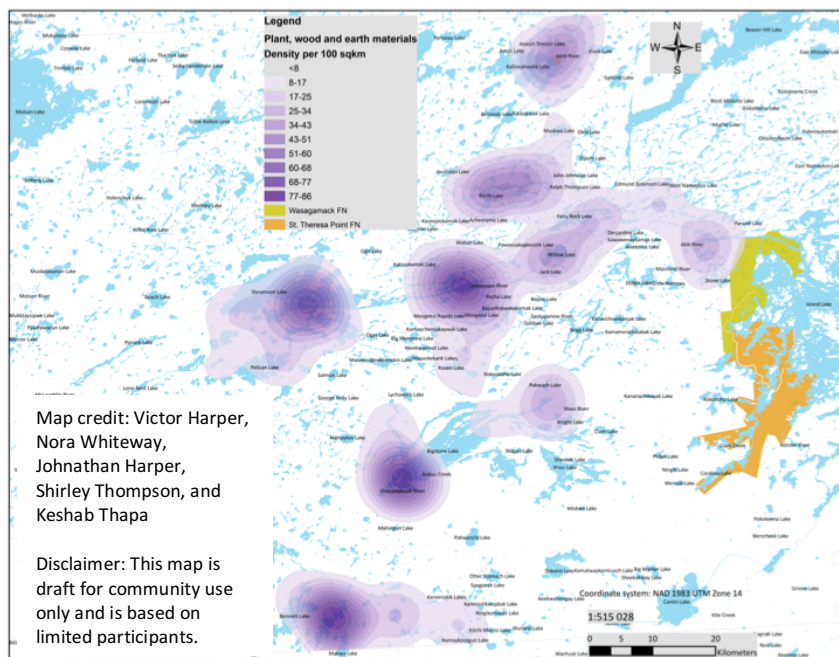


Figure 22. Density of plant and earth material collection sites of 49 Wasagamack community members.

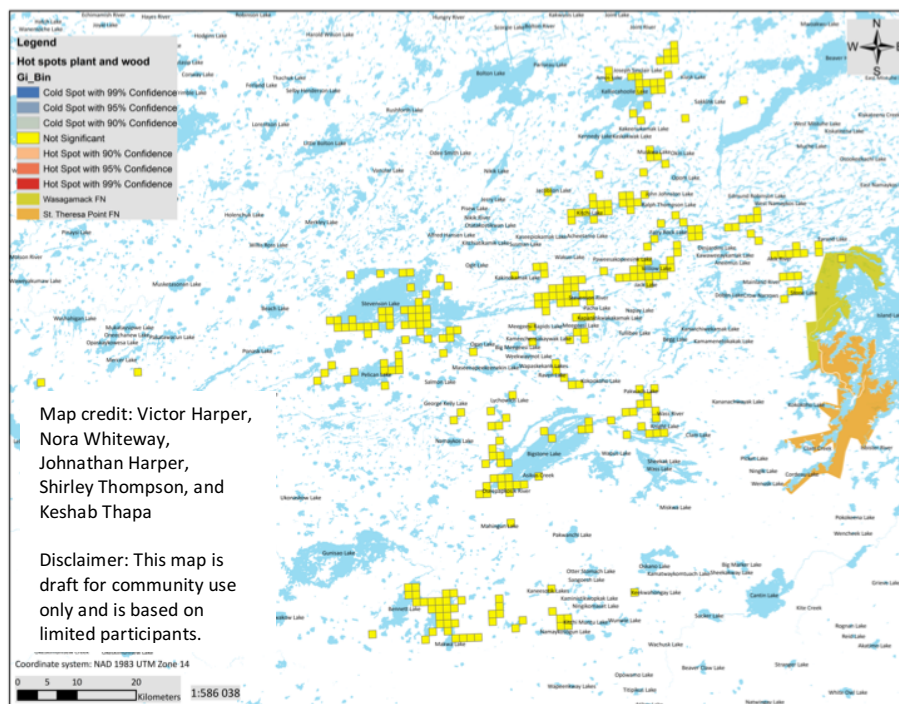
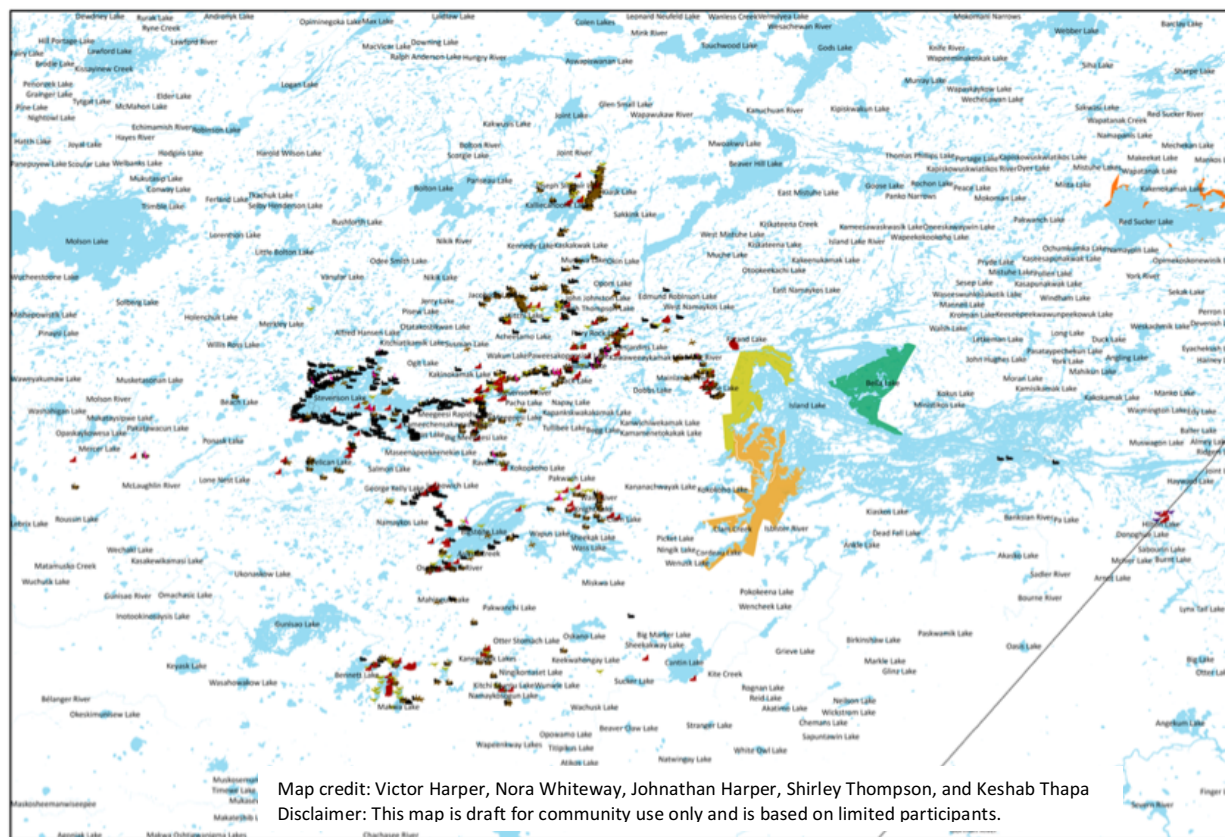


Figure 23. Hotpot analysis of plant, wood and earth material collection sites of 49 Wasagamack community members.

4.1.7 Location, density and hotspots of bird hunting and egg harvesting.

Hunting duck, geese, grouse, ptarmigan and swan, along with gathering eggs is common among the 49 community members. Popular hunting sites (duck, grouse, geese) include Makwa Lake and Cantin Lake in the south, near Lebrix Lake in the west, Amos Lake and Naykos Lake in the north and Hilton Lake in the east (Figure 24). The majority of bird hunting sites are in and around Stevenson Lake, Stevenson River, Bigstone Lake, Gunisao River, Knight Lake, Stone Lake, Fairy Rock Lake, Kitchi Lake, Kalliecahoolie Lake and Joseph Sinclair Lake (Figure 25). Statistically significant hotspots are observed in Kalliecahoolie Lake and Joseph Sinclair Lake (Figure 26).



Birds and eggs harvested in the traditional territories by Wasagamack First Nation
 Coordinate system: NAD 1983 UTM Zone 14
 Prepared on: Feb 15, 2018
 Map prepared by: Keshab Thapa, NRI, University of Manitoba

Figure 24. Bird hunting and egg harvesting sites of 49 Wasagamack community members.

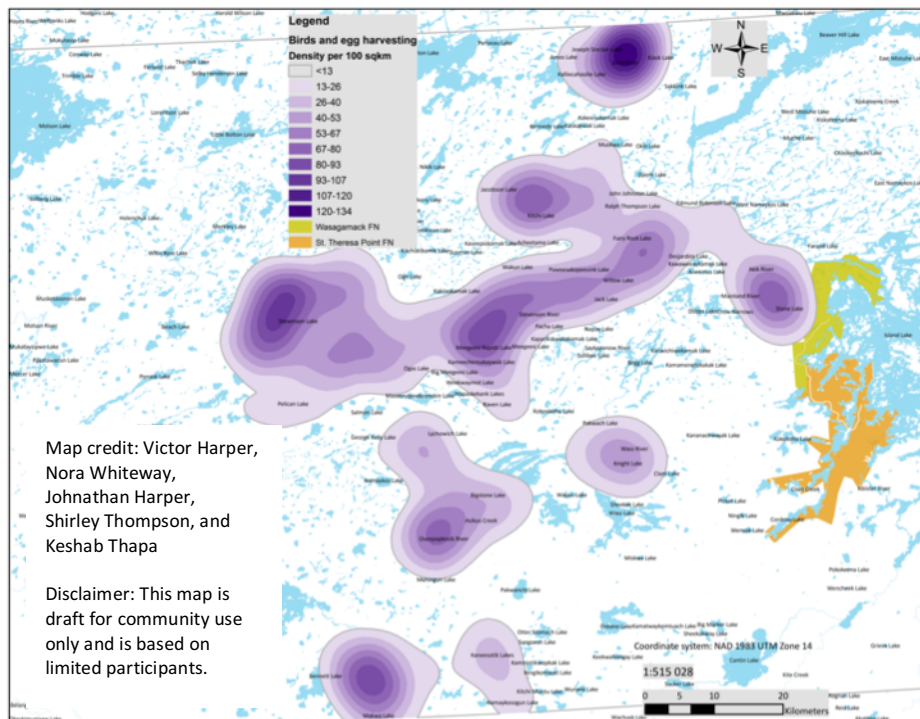


Figure 25. Density of bird hunting and egg harvesting sites of 49 Wasagamack community members.

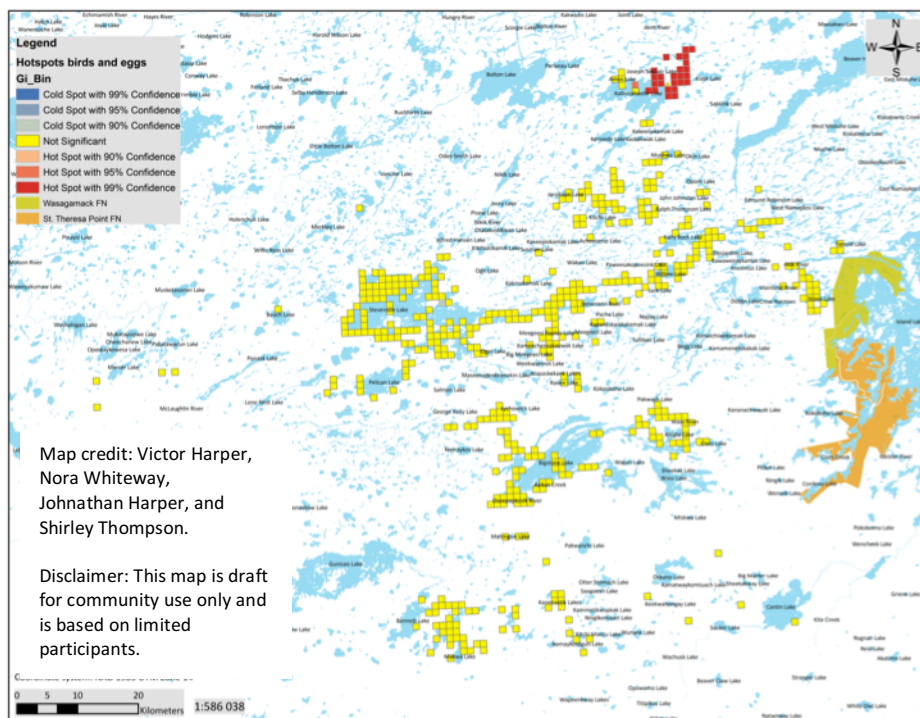


Figure 26. Bird hunting and egg harvesting hotspots of 49 Wasagamack community members.

4.2 Discussion of Land Use of Wasagamack First Nation

4.2.1 Land Use Maps. The land used by the community members cluster around different lakes and rivers throughout the Wasagamack traditional territory. Water appears as a significant aspect of land use. The pre-analysis assumption regarding the proximity of land use to the reserve was that the community would primarily use the areas nearby the reserve. Land use maps, however, illustrate that community members travel great distances from the reserve for many purposes – including hunting, fishing and trapping as well as ceremony and other cultural reasons. Not all of the land use falls within the registered traplines and around lakes but much does, indicating that these designated family trapping – as well as those beyond – are important and need to be considered in land use and consultation.

The aerial distance map depicts the community members' extensive travelling throughout their territories and the deep connections established with the land to sustain their livelihoods (Joly, Longley, Wells, & Gerbrandt, 2018) , despite the lack of any access roads to these regions. In practice, the land use activities are not limited to only one or a few spots, i.e., geo-references, as defined in the map. For instance, a hunter or a trapper would conduct both hunting and cultural activities in a few to many square meters of land over the range of their trapline; many cultural sites would fall outside of the trapline (Joly et al., 2018). During the interview, Sharon Mason, past Chief, highlighted that her people throughout the territory were part of the landscape, performing land-based activities that keep them healthy. During a review of the results, Nora Whiteway, a Wasagamack Elder, shared a story about her long canoeing and portaging journey to her trapline, a round-trip travel time of 15 days. Nora's travels often saw her staying at the trapline from a few weeks up to two months. People who journeyed

these distances often constructed cabins in the trapline locales to accommodate the extended fishing/trapping period.

The community members' land use experiences reflect the significance of and connection with their ancestral land. Thus, the many land use locations, as identified on the maps, should be considered evidence for asserting Indigenous rights to Indigenous sovereignty over their territory. Even so, these encompass but a small fraction of the land uses sites that exist for the entire community. As well, documentation of Elders' experiences and stories of land use in the territory, gathered from all age groups through qualitative or Indigenous research methodologies, can be valuable for claims on Indigenous territory (McIlwraith & Cormier, 2016). Although mapping defines the scope of traditional land use planning in Indigenous territories (Minkin et al., 2014), these maps lack the ability to convey their cultural significance.

In the context of Island Lake, for instance, land use maps show how the traditional territory of Wasagamack overlap with other Island Lake communities. Thus, the integration of mapping empowers neighboring communities to claim rights over the entire territory as one region. Alex McDougall, past Chief of Wasagamack First Nation, spoke to the importance of overlapping land uses:

If you look at the geography of Island Lake and the proximity of the communities within Island Lake, there are obvious overlaps in our traditional land use maps. I was wanting to see an exercise where Island Lake [as one community] would have its regional land use area as a whole to include the other communities and avoid any confrontation or any disagreements in the overlaps.

An in-depth documentation of use and traditional ecological knowledge of Wasagamack territory lays a foundation to claim their land rights. The Inuit Land Use and Occupancy Project,

NWT, shows how land use mapping initiated negotiations for the Nunavut Land Claim Agreement (Freeman, 2011), a new way of indigenous communities claiming sovereignty to Indigenous territory. Land use mapping and documentation of traditional ecological knowledge of Wasagamack First Nation, along with other First Nation communities in Island Lake, provides evidence of occupancy to claim their territories' land for managing and sovereignty. Community-based land use maps and land claims can be a tool for Indigenous people to regain control over traditional territories and, in so doing, enhance independence (McGregor, 2013) by flourishing community leadership to promote community *Mino Bimaadiziwin* through community-led solutions (Mcdonnell et al., 2018).

Industries and outsiders' development activities are expanding into Indigenous territories, globally (Tauli-Corpuz, Alcorn, & Molnar, 2018; Wilder, O'meara, Monti, & Nabhan, 2016). In Island Lake, specifically, international mining companies are exploring and claiming gold. Securing Indigenous rights to their territories, in the developing countries, has resulted in the efficient management of land, water and forests with high social, economic and ecological benefit at community and regional levels through better ecosystem services (Ding et al., 2016; Tauli-Corpuz et al., 2018). Compared to other protected areas, Indigenous peoples and local communities-led conservation has been particularly effective in conserving biodiversity hotspots, managing wildfires and sequestering forest carbon by benefitting both the Indigenous communities and national governments (Tauli-Corpuz et al., 2018). In a review of 29 case studies of Indigenous peoples and local communities-led conservations in Asia and Latin America, including 14 low-and middle-income countries, Tauli-Corpuz et al. (2018) argue for the efficiency of local community-led biodiversity conservation; they estimate local communities

are investing US\$3.57 per hectare in those 14 countries compared to US\$5.20 per hectare invested in protected areas in Brazil, India, Indonesia, Kenya, Peru and Tanzania. This comparison illustrates the efficiency of conservation of territories under the ownership of Indigenous peoples and local communities. Likewise, Wasagamack-led land use planning would allow greater efficiency in protecting the biodiversity and ecosystem services of their territories and sustaining their Indigenous livelihoods. In Wasagamack and in Island Lake, Indigenous governance would enhance community assets and decision making, alleviating the current challenges of third party management, leading to cultural preservation, better drinking water, access to traditional foods, good houses, and quality community services needed for an *Anishinew Mino Bimaadiziwin* (Mcdonnell et al., 2018).

A review of literature on biodiversity found Indigenous peoples are pivotal in the conservation of the world's biodiversity largely due to their views, knowledge and practices in this realm (Tauli-Corpuz et al., 2018). Research recognizes the importance of Indigenous peoples stewardship and management of habitats to protect biodiversity as conservation descends from the Indigenous knowledge-innovations-beliefs system in Indigenous communities (Wilder et al., 2016).

In the Wasagamack worldview, their land is sacred. How Canadian people will reconcile with Wasagamack over the land when they hold minerals and resources as more valuable than biodiversity and intact ecosystems is still unanswered. A rigid administrative boundary system to protect territories fails to understand the Indigenous worldview that the land is sacred and is indifferent to the colonial boundaries (McGregor, 2013; McIlwraith & Cormier, 2016). Community-based land use maps and land claims, however, will lead Indigenous people to

regain control over traditional territories and, in so doing, enhance independence (McGregor, 2013). As Indigenous people, managing their lands is important for biodiversity and cultural preservation. Canadian governments and Indigenous communities should foster a government-to-government or nation-to-nation planning and governance of Indigenous territories to achieve Indigenous self-government (Barry, 2016) and to meet the biodiversity conservation goals.

4.2.2 Density and Hotspot Maps. The density and hotspot maps provide a synopsis of the traditional territory land use of 49 community members, in varying intensities. Density maps identified some livelihood areas where land use is concentrated for the 49 community members. Hotspot maps confirmed statistically significant land use areas, depicting that the clustering of land use points is not random or by chance only. The maps support decision-making by Wasagamack First Nation to protect their territory but do not guide or direct the specifics of community action (McIlwraith & Cormier, 2016). ***Developers and planners should not interpret that the hotspot or density areas are the only ones requiring protection. Rather, the community views the entire area as sacred and in need of protection. This analysis is the result of only a small sample of the population; as such, the findings cannot be generalized to the entire community.***

Statistically significant land use hotspots for fishing, trapping and overnight stays were found in Bennett Lake, Gunisao River and Makwa Lake for the 49 community members interviewed. Statistically significant hotspots for hunting were observed in Bigstone Lake, Stevenson River and Oseepapkosik River; for bird hunting and egg gathering, Kalliecahoolie Lake, Joseph Sinclair Lake, Namaykos Lake and Kiask Lake. This research did not question why

the land use and land had statistically significant hotspots for bird hunting/egg gathers in very different locations than for other land uses; doing so would require additional traditional ecological knowledge studies and analyses.

Indigenous landscapes are holistically connected rather than isolated spaces (McIlwraith & Cormier, 2016). As Sharon Mason described, “Our DNA is in the land. We have got our people buried all over our traditional territory. And their DNA becomes part of the land... We weren't just in one spot until we were put on that one spot [reserve].” Irrespective of the statistical significance of land use hotspots, she emphasizes an intimate and spiritual connection of Wasagamack community members with their land and territory; the kind of connection that shapes Indigenous philosophies and leads to protection of land (Tauli-Corpuz et al., 2018).

The lands not reflected as land use spots on the map may well have cultural and/or sacred significance to the community and warrant protection (Joly et al., 2018). To do so, community members might not describe how lands that appear unoccupied in the maps are used, for fear of further colonization attempts by the governments (Joly et al., 2018). Land and resources, however, can change over time, impacting land use locations, densities and significant hotspots (Joly et al., 2018). Consequently, land use mapping and documentation of traditional knowledge associated with the land uses over time and space can better inform planning and sustainable territorial governance by Indigenous community.

4.2.3 Policy Implications. The land use, density and hotspot maps signify the importance of the entire traditional territory for Wasagamack First Nation, which extends beyond Wasagamack’s traplines. Since most of the land uses fall around lakes and rivers, these features play a significant role in the people’s livelihood. The traplines and the overall ancestral

territory, except for federal reserve land, however, are Crown land. The provincial government retains jurisdictional authority over this region and can promote any development activities that benefit the government or industry.

Proposed expansion of mining, hydroelectricity, road and lumber into traditional territories, without adequate community consultation and decisions, will overlap with Indigenous land use and deteriorate their quality of life. The provincial government has targeted key regions of Wasagamack for mining and exploration, due to a recent bedrock mapping study finding of gold veins in the greenstone belt of Bigstone Lake and Knight Lake (Rinne, 2017). Yet, these lakes are the statistically significant land use hotspots and important for Wasagamack people to meet their food, shelter and cultural needs. The study, however, does not mention any steps taken to consult Wasagamack community members and fails to acknowledge the significance of areas for community livelihoods. Protection of indigenous land and water against industries and outside development should be a key priority of the Manitoba government (Manitoba Indigenous and Northern Relations, 2018). Unfortunately, the 2011 artificial flooding of Lake Manitoba clearly reveals the government's lack of commitment in securing the inherent and livelihood rights of Indigenous communities. The displacement of Lake St. Martin First Nation from their reserve and territories in northern Manitoba symbolizes how the province can undermine First Nation livelihoods by prioritizing settler development (Thompson, Ballard, & Martin, 2013).

Conventional management approaches, such as the protected area approach or the resource development approach, counter the socio-cultural needs of Indigenous communities and the worldview that ancestral land is sacred. Resource development in Indigenous territories

would reduce biodiversity and peoples' access to lands (Jojoba, 2013) thereby increasing risks of food inaccessibility, resource use conflict and disconnection with spiritual areas; overall, a picture of injustice (Tauli-Corpuz et al., 2018). Similarly, a protected area approach, unless carefully undertaken and devolved to First Nations, would reduce access to resources needed by First Nation communities and their role as stewards of the land. Recently, UNESCO World Heritage Centre has declared Pimachiowin Aki, Canada as the first Canadian mixed World Heritage site (UNESCO World Heritage Centre, 2018). Pimachiowin Aki covers the traditional territory of the four Anishinaabe First Nations communities, on the east side of Lake Winnipeg, Manitoba, namely, Bloodvein River, Little Grand Rapids, Pauingassi and Poplar River First Nations – the First Nations included in the Wabanong Nakaygum Okimawin (WNO). The heritage site spans a boreal forest ecosystem of 2,904,000 hectares and an Anishinabe cultural landscape (UNESCO World Heritage Centre, 2018). A coordinating body, Pimachiowin Aki Corporation, with a management plan, has been formed by the First Nations and the provincial stakeholders to foster a participatory governance of the heritage site (UNESCO World Heritage Centre, 2018). With this recognition, the area would be protected against external development threats, such as, hydropower, mining, etc. What remains unclear is how the heritage site will contribute to ensuring Indigenous rights of the First Nations to their territories. The operational guidelines of World heritage sites is a top-down governance model; the implementation process proceeds under the state laws and treats the Indigenous peoples and local communities as partners only (UNESCO World Heritage Centre, 2017). As this is also a cultural heritage site, this arrangement, if implemented bottom-up, may result in more power and funding to First Nations. Wasagamack First Nation and other First Nations in Island Lake

might also be invited in the future to include their territories during the expansion of the area of Pimachiowin Aki; this research will empower the Wasagamack First Nation to assert claims to their territory and to share the priorities for their *Mino Bimaadiziwin*.

To summarize, promoting settler-run protected areas or industrial development areas would be a success for colonial governments, but a travesty to Indigenous communities (Jojola, 2013) in displacing them from their traditional territory. It is, therefore, imperative that land use planning in Indigenous territories be led by Indigenous principles and norms (Jojola, 2013) to identify the community priorities and prioritize protection of territories, through meaningful participation of Indigenous community members and integration of traditional knowledge (Hostetler, 2018), to fulfill *Mino Bimaadiziwin*. It is hoped that these maps will provide a basis for land use for Wasagamack, and the maps with Elders' teachings will provide Indigenous youth greater knowledge about their traditional territory, forming a basis for future Indigenous land use planning (Manitoba Indigenous and Northern Relations, 2018) as discussed in the succeeding sections.

4.3 Community Priorities and Indigenous Land Use Planning for Wasagamack First Nation

Ten Wasagamack community members described Indigenous land use planning as a means to achieve *Mino Bimaadiziwin*. Figure 27a shows a word frequency analysis of ten interview transcripts, excluding the questions asked. The keywords frequently appearing are: 'land,' 'people,' 'want,' 'community,' 'see,' 'Elders,' 'way,' 'traditional,' 'need,' 'language,' and 'learn', which exemplify community priorities.

Gender differences in keywords were apparent. 'People,' 'land,' 'community,' 'Elders' and 'traditional,' (Figure 27b) were frequently used by men; 'land,' 'people,' 'healing,' 'Elder' and 'home' (Figure 27c) were used by women. Land, people and Elders are important from the perspective of both genders; women, however, expressed greater connection with land, likely in the context of its power to feed and heal their families. 'Healing' and 'homes' speak to the women's care-giving roles; men appeared more focused on community and people.

Five themes and fifteen subthemes emerged through interview transcript analyses: community priorities, the significance of ancestral land, Elders' role in the community, the significance of Indigenous land use planning, and barriers to Indigenous land use planning. Figure 28 provides the list of themes, sub-themes and codes.

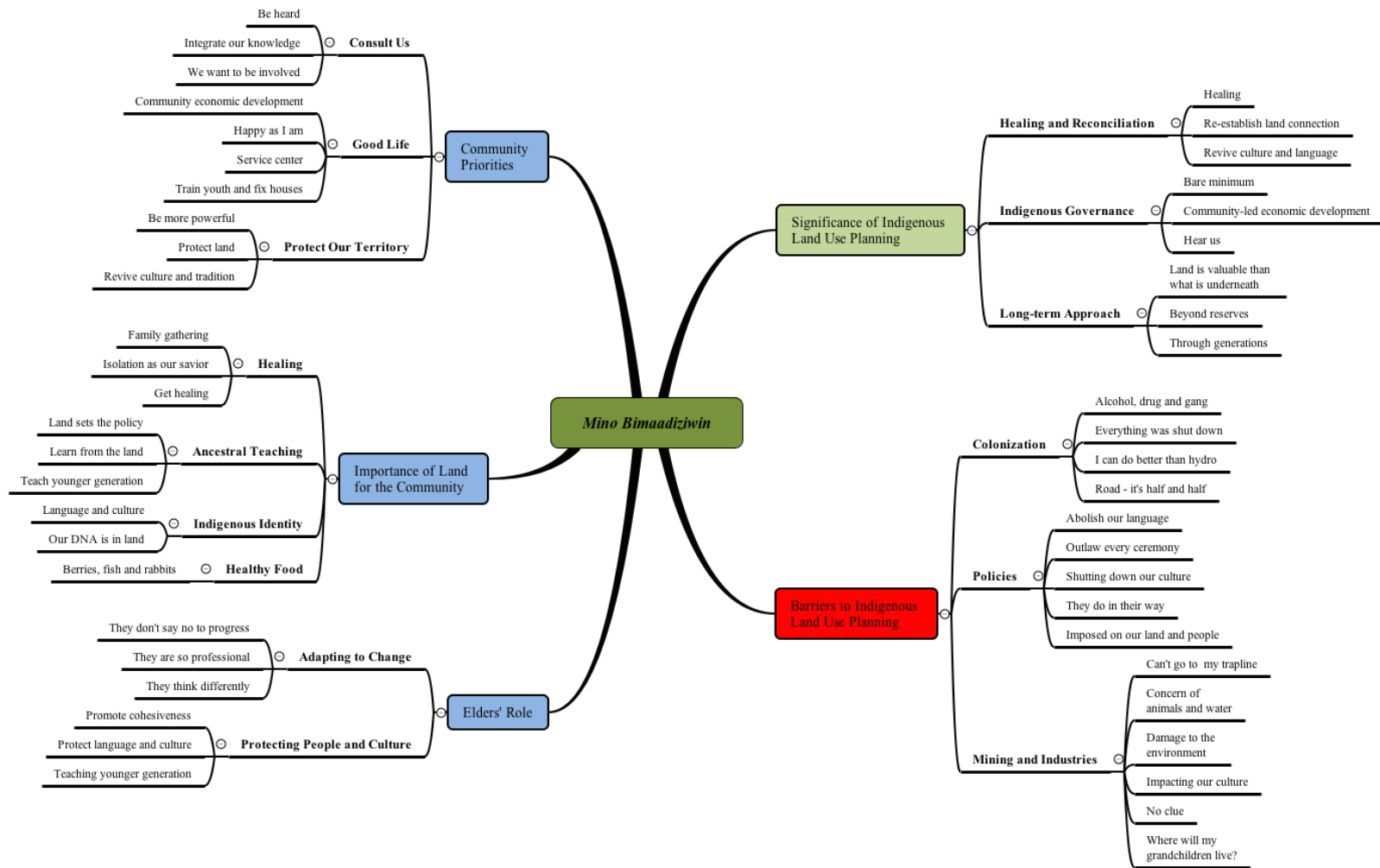


Figure 28. Themes, subthemes, and codes from interviews of ten Wasagamack First Nation community members.

The themes in Figure 28 are color coded. Blue represents the themes that reflect community strengths as well as needs and aspirations, namely, 'community priorities,' 'importance of land' and 'Elders' role.' Red represents themes that limit leadership and governance. Green represents the theme of 'significance of Indigenous land use planning.' The following subsections explain the themes and their subtheme developed.

4.3.1 Community priorities. Community priorities are categorized into three sub-themes: consult us, good life and protect our territory.

Consult us. Community members desired their voices to 'be heard' for the better governance of Wasagamack First Nation's ancestral territory. Community members revealed that governments had done the 'bare minimum' in consultation with Wasagamack First Nation regarding external development activities in their traditional territory. Sharon explained how the level of consultation is against the true intent of reconciliation and duties to consult with the community:

What we have to say, do the minimum amount they need to do the courts of required consultation. So they say we want to consult. But they will consult at the very minimum. What do we need to do to achieve our goal? Oh! Send them a letter. There is the letter. Minimum, right! Oh! Have a short meeting and explain to them what we are doing. Minimum! So always the bare minimum to achieve their goal. That's not reconciliation. That's greed, and that continues to govern what is happening in our country.

As Wasagamack First Nation has no control of its traditional territory to protect it from development threats and promote community-based economic development, community members require consultation to get their needs reflected. Wasagamack First Nation would be making decisions to protect their territories. Development and policies that impact First Nations, without consulting Indigenous communities, is not in

the spirit of reconciliation but reflects the continuation of colonialism in Canada (Tully, 1999). Adequate, timely consultation with First Nation communities and integration of their concerns and priorities to meet their cultural and livelihood needs protect lands and maintain relationships with industries, corporations and universities (Manitoba Indigenous and Northern Relations, 2018); these measures should be embraced by governments (Evans & Downey, 2017). Recognizing and integrating community knowledge and their perspectives would provide pathways for environmental sustainability and a greater understanding of forest, land, and water of Indigenous territories (Freeman, 2011).

Good life. Having a good life, *Mino-Bimaadiziwin*, is a positive end-product of community-led economic development. According to Alex, community economic development provides opportunities for Identifying resources and promoting a local economy to enhance overall prosperity. Jerry sees the benefits of such development in stating:

We would have opportunities to save and have access to the big lumber, better materials, better supplies, and better equipment. This way they [the community can] save and begin their own.

Identifying resources in the traditional territory and promoting a local economy for the sustainable livelihood of Wasagamack people is one of the ways to achieve *Mino Bimaadiziwin*. The revenues generated from development opportunities are vital for improving community health, income, education, infrastructure and social services (Wingert, 2013). Benefits will be realized only when First Nations communities are in the

forefront of planning their communities and territories (Simpson, Storm, & Sullivan, 2007).

Community economic development must address economic poverty. The median income for community members in Wasagamack First Nation is \$11,499/year compared to \$34,188 for Manitoba and \$34,204 for Canada (StatsCanada, 2017). House needing major repair tip the scale at 83%; a housing crisis manifests in seeing an average of 5 people in each house (StatsCanada, 2017) but, in some cases, as many as 23. The Royal Commission on Aboriginal Peoples (RCAP) states:

Injection of capital and the integration of housing objectives with other social and economic activities in Aboriginal communities will create a synergistic effect, making housing a source of community healing and economic renewal (Canada Royal Commission on Aboriginal Peoples, 1996c, p. 341).

Jerry asserted the need for a 'service station' in Wasagamack for a quality livelihood of Wasagamack people to meet the basic needs of people in the community; healthy water/sewer, shelter, food and education are not being met adequately. Poor water, housing and inadequate healthy food have caused relocation of some community members to urban centers for medical treatment as medical services are inadequate in Island Lake (Mcdonnell et al., 2018), disconnecting them from their land and culture. The community members are also struggling, in the city centers, to find adequate social services to sustain their treatment, where they are deprived of accessing country foods (Mcdonnell et al., 2018). Government policies and third party management of infrastructure in reserves are the root causes of relocation and associated challenges that exclude communities to self-govern their livelihoods for *Mino Bimaadiziwin* (Mcdonnell et al., 2018); timely and adequate services are needed in Wasagamack.

A community-led economic development is necessary to uplift the well-being of Wasagamack First Nation that has been severed by colonization and residential schools.

Victor further stated why community-led economic development is crucial:

If you have an economy, you have your foundation. Then you build your success, so set the foundation but with First Nations perspectives ... We are already saving water for other people, other nations. So other people continue to enjoy what nature has given. I guess what you are saying is money provides the greed for people and we don't care about the land. But our Elders are saying is it [land] has to be preserved not only for First Nation but all people.

In contrast to the state-led and market-oriented economic development in Manitoba, community economic development benefits Indigenous communities by promoting local products to fulfill local needs, employing local people and youths and investing the revenue for community development (Enns, 2018). As fostering a local economy is key to the *Mino Bimaadiziwin* of Wasagamack people, local, provincial and federal governments should support quality educational, social and infrastructural services to the community, as well as ensure their rights (Wingert, 2013) as obligated by the Treaties.

Protect our territory. Protecting Wasagamack traditional territory is necessary for reviving language and culture. An important teaching Garry received from his grandparents was to respect and clean the land by protecting it against damage and destruction. Knowing where 'fish swim and animals cross,' he felt he had a role 'to protect wildlife and environment' and his territory. This sacred relationship with the lands, as well as the Indigenous way of living, is rooted in their ancestral land being intact (Wilson, 2001).

Sharon shared why Wasagamack community members want to protect their land from external development:

We have heard from the people so far that they don't want to see mining. They [community members] don't want to see those outside companies coming in, doing their exploratory research or damaging the lands and waters. Taking all the money that [our land and water] can provide for them. And then leaving us with the mess ... You come and ask us [for mining], and so far we have been saying no.

Nora shared how land use mapping of the entire Island Lake territory could be helpful for preserving the land, especially when linked to the youth and future generation:

If a mine goes through there [trapline] if something goes through there, what is left for children, the future generations? Nothing is left. We have to preserve our lands, our traplines and our traditional berries.

Community members believed protecting their ancestral territory is a means to revive and sustain their cultural ceremonies, which was lost due to colonization, residential schools, mining and exploration. Indigenous communities have a significant role in protecting the biodiversity and ecosystem services of Indigenous territories (Little Grand Rapids First Nation and the Government of Manitoba, 2012; Poplar River First Nation, 2011; Tauli-Corpuz et al., 2018). Wasagamack First Nation community members did not want interference from outside industrial or commercial activities, distinctly saying 'no drilling, no mining' in their land and traplines.

To better protect their ancestral territory from external threats, Alex and Jerry argued for Island Lake communities to be united in preserving the entire Island Lake area, not only Wasagamack's traditional territory. The four communities were united as one band until 1969 and, now, still share the same issues and governance mechanisms.

Working together would help First Nations communities to identify land use overlaps in their territories, strengthen their collaboration to claims and protect their territories (Minkin et al., 2014).

4.3.2 Importance of land for Wasagamack First Nation. Importance of land in Wasagamack First Nation is described as: Indigenous identity, healthy food, ancestral teaching and healing.

Indigenous identity. The ancestral land is essential to maintain an Indigenous identity. Sharon described how intimately the people are tied to their land and territory:

Your connection to the land, your tie to the land, makes you who you are ... We are so intimately tied and connected that to lose the land is to lose another part of ourselves, a critical part of ourselves. It's important that we re-establish those connections because those connections have been severed by colonization and residential schools.

The ancestral land is vital for reviving Indigenous language and culture; people need to go back to their land to know who they are and where they are from, i.e., to know and keep their identity (Manitoba Indigenous and Northern Relations, 2018). Preserving land and land-based learning clears the path to reconciliation and maintaining an Indigenous identity (Truth and Reconciliation Commission of Canada, 2015).

Families gather to camp, often on the trapline, to celebrate their festivals as well as to spend time together. Alex related his experience of a family gathering on his territory, which he still holds dear:

It's a family trip. It's a family hunting and gathering. It's a family exercise of working together that who is doing what, who is getting the water, who is getting into the wood, and who is getting the next meal on the table.

Mary reflected on how her memory of her land helped her to have a peaceful lifestyle with her family:

Life is different [in the trapline] than here. There are lots of blueberries, ducks, rabbit, and moose. I was trying to make a smokehouse. We smoked fish. Sometimes anything. Whitefish. We get some blueberries and beaver. It's nice over there [in the trapline] ... Kids liked it. They wanted to go again. I don't know when. They want to go and pick some berries. It's not that deep water, but we have a beach over there. It's a nice one. They [kids] swim.

Alex and Mary's land-based experiences provide an overview of the importance of their traditional territory to maintain an Ojibwe-Cree culture and lifestyle through family gatherings, learning and sharing from each other and enjoying the peacefulness the land offers.

Healthy food. A few decades ago most people in Wasagamack relied exclusively on a local diet of wildlife, fish, berries and other plants (Fieldhouse & Thompson, 2012; Thompson, Rony, & Temmer, 2014). Living in this remote community that lacks both an airport and an all-weather road to bring in commercial food, hunting, fishing and gathering remain integral parts of their culture, food supply and livelihood, which is local and small-scale. Mary recalled her memories on her trapline, with her parents, eating 'berries, fish and rabbits:'

We get lots of berries, fish, and rabbits [in the trapline]. That's why I feel special. It's peaceful over there [in the trapline]. A long time ago, we went to Kalliecahoolie [Lake] using a paddle and canoe ... We made some moose meat, fish meat, and beaver meat in the smoke [house]. I really liked it. We made a log house to stay over the winter.

Significant pharmacologic and therapeutic benefits result from the eco-carnivore diet of wild meat and fish, rich in nutrients and protein but low in unhealthy fats, sodium, carbohydrate and sugar (Kuhnlein et al., 2006). The physical activity of

harvesting, gathering and preparing of food provides a protection against a host of chronic diseases (Thompson et al., 2012). The transition to commercially produced food, however, sees Wasagamack plagued by food insecurity (61%) (Thompson et al., 2012), diabetes and other chronic diseases (Kuhnlein et al., 2006). Because Indigenous communities in Canada are facing increasing food insecurities (Council of Canadian Academies, 2014), accessing foods from their traditional territories is essential to their well-being (Bordeleau, Asselin, Mazerolle, & Imbeau, 2016).

Ancestral teaching. Indigenous knowledge systems stem from the land; as Victor claims, “It is the land that directs people to do what is needed.” The knowledge of what the land needs resides within the First Nation community; such knowledge can resolve the problems of this time that find the source in the capitalistic economy:

The land has the rules. The land has the policies. But the governments don't know that ... When you talk about sustainability like the land use, there is a way to gold mining and fisheries and all like that because the land has already set up the policies. It's not them [governments] who were talking. It's the people from the past who were talking. That's why we have all this tradition that has been passed down through generations and generations.

Nora explained the role of land for enhancing the learning of younger generation:

Last winter, our family services took some youth out on land ... They learned from there. The youth didn't want to come home. They liked it out there so much, and they fished ... By doing that, by achieving that, that's where when you learn from the land when they know how to do things, hands-on stuff. That's when they will have good self-esteem. And I remember we tried to teach youth how to dance too, like dancing powwow and regalia ... It was very good.

Wasagamack suffered dire consequences as a result of residential schools and settler-dominated governments policies and actions; consequences that created barriers to continue their land-based culture and livelihood. Teaching youth on land

helps maintain the Ojibwe-Cree language and culture. Nora shared that learning from the land requires people understand their language and spend time on the land.

Another Elder and past Chief, Alfred McDougall, explained that language and culture are fundamental to the community identity, particularly to the youth. It is imperative they learn how families stayed together and how language and culture are linked to their land. Community members inferred that their Indigenous culture, language and traditions remain 'alive' when the younger generation is immersed in keeping these aspects alive. Land provides a platform to learn and to share ancestral teaching for the Indigenous livelihood to thrive (Hansen & Antsanen, 2016).

Healing. Land is health, medicine and healing to Wasagamack. Victor described the significance of spiritual and physical healing found in the fresh air and medicines from the land, saying: "The land itself is, that's where we get, our medicine. Look outside and right away, it's medicine ... Even the berries and roots ... It is the hospital." Cecilia Harper, teacher and community member, expressed how land and land-based activities link to healing. Likewise, Nora wanted to see a healing center on the land.

Sharon conveyed the different components of land related to healing:

When you are out there, the air is different. There's healing in the air. There's healing in the water ... True healing, not just an idea or not just people believing it, but it really does happen when people are not well ... You are physically healthy from what you eat and from all the activity. You are spiritually healthy because you are connecting to all the majesty out there. And what the Creator has provided. And the beauty, the peace, and the comfort. You are just all-around healthier. And it's something that I want my children to see, to recognize, to feel, and to honor. And something I want to pass onto them so that when I'm long gone, they still know where to go to get healthy.

The medicine gained from land along with Elders' teachings to use the medicine contributes to Indigenous healing (Hansen & Antsanen, 2016). Families gathering and healing, together, on the land, are the cornerstone of removing, as well as forgiving, the injustices of colonialism and residential schools (Elliott et al., 2012). Sharon expressed her perspective on the need for healing:

There is just so much healing that needs to happen. There is so much damage that has happened to our communities. There is so much hurt. There is so much suffering. There is so much sickness. And it is only through re-establishing our connection to the land and getting back out on the land that we will heal and that we will become healthier.

Without land, no healing will transpire. If a First Nation community, for example, Wasagamack, leads the process, community priorities and perspectives related to land-based activities will be better integrated into decisions made for their traditional territory (Minkin et al., 2014).

4.3.3 The role of Elders in Wasagamack First Nation. Two important roles of Elders were discussed in the 10 interviews. First, Elders have a role in protecting their people and culture. Second, they have a role, based on their experiences and knowledge, in adapting to changes by applying their accumulated wisdom and Indigenous knowledge to the issues.

Protecting people and culture. Elders in Wasagamack protect First Nation people and their culture through ancestral teaching and guidance. Some community members considered the role of Elders instrumental for teaching the younger generation, protecting language and culture, and promoting cohesiveness in the society. Alex emphasized the role of Elders as an effort 'to try and retain' an Ojibwe-Cree

language and identity through working with Wasagamack Elders and youth. Harvey Dale Harper, head trapper, was passing the survival skills he received from his father to the new generation. Elders teach youth the skills to survive and to protect their language, culture and land (Hansen & Antsanen, 2016).

Elders gatherings to meet, discuss and teach youth about their culture have become important events in Wasagamack. Some of the community members experienced gathering as helpful for passing down of ancestral teaching and traditional knowledge to the younger generation. Nora recalled her learning from the Elders and how she is planning to hand on that learning:

We used to learn a lot of things out there at the Elders gathering every year. One time I remember we were assigned to an Elder each. And that Elder you are assigned teaches you the medicines and the roots from the land ... He would boil the roots and everything. His teachings are with me. And I hold on to him ... One day I will be able to teach the younger generation with those teaching.

Victor spoke of the importance of Elders and youths meeting regularly to learn about traditional language and culture:

To the young people of First Nation, learn about your culture. Don't ever forget that you are First Nation person. You are a First Nation person. You are always a First Nation person, so don't try and hide. Don't try and deceive yourself. Be a First Nation person, with degrees. Learn from people. And your life would be comfortable. Your life would be successful. And you will smile. That's my message to young people.

Alex also articulated the vital role of Elders and annual Elders gatherings in Wasagamack First Nation:

That [Elders gathering] gives us those [being cohesiveness] teachings. We were able to pass them to our youth and still some strong family values. Those are the types of connections that we are trying to enhance through Elders gathering that we are currently having in our community. And this is how we take traditional

and contemporary information and knowledge that's out there. We bring it together so that it's supporting [our culture] and being cohesive in our existence.

Educating the future generations to speak their language, to continue their ceremonies and to pass on their ancestral teaching is the role of Elders (Elliott et al., 2012). Elders gatherings in Wasagamack have contributed to cohesiveness among the members of Wasagamack First Nation. As leaders of the communities, the Elders' guidance is pivotal for teaching their youth and protecting their rights in planning their traditional territories (Manitoba Indigenous and Northern Relations, 2018).

Adapting to change. Elders lead their community to adapt to changes in the political, developmental or other natural contexts in the community or region. They adapt to the changes through a holistic approach by integrating a conventional knowledge system with their traditional system. According to Victor:

They [Elders] want the ancestral systems to complement the contemporary system and the contemporary system to complement the ancestral system. Then put them together and make a holistic program. One and only one. Not the white men away, not the Indian away. Just one together.

Victor emphasized the Elders “think differently than the policies of today...they [Elders] will never be what the government tried to make.” He further explained that the Elders are academic and professional; his community sees and values Elders' knowledge because they learn from land, which is even more powerful than, or at least similar to, university professors who learn from the educational facilities they have.

Based on a skill learned from his father, Alfred described how resourceful the Elders are in innovating skills needed for a particular context:

When you set the net, it takes two people to set it. But one time he showed me how to set the net by myself. The skills he used that were not made out of a white man's inventions. He used whatever he had.

Elders' guidance and teaching provide leadership to the community to adapt to the various changes at the community level, especially in educating youths about the past and in developing their leadership to deal with future uncertainties through land-based resources (Hansen & Antsanen, 2016). Through continuous mentoring by Elders, youth are better able to realize the significance of their traditional knowledge system and integrate the scientific innovations to protect and manage their traditional territory (Stiegelbauer, 1996).

4.3.4 The significance of Indigenous land use planning to Wasagamack First Nation. Indigenous land use planning to Wasagamack First Nation is significant due to its role in 'healing and reconciliation,' Indigenous governance and providing a 'long term plan.' Victor explained the need for Indigenous people to decide what occurs on Indigenous territory, "Can we be part of the decision making? ... So, Indigenous land planning is mainly to have First Nation people getting involved with how the land is being used." Victor believed development in the territory would be approached differently if the Wasagamack drove planning decisions. Indigenous land use planning, as he emphasized, should be based on local culture and the people's way of understanding their land. Such planning is possible when Wasagamack is in the forefront of decision-making for their territory.

Healing and reconciliation. Wasagamack-led land use planning requires the government to respect the role of First Nations as stewards and lead planners for their

ancestral territories. Sharon felt reconciliation should happen by strengthening the role of Indigenous communities to plan and protect their territory:

If there were a true intent for reconciliation, then they [governments] would come to us and ask us what does reconciliation look like. And we would talk about the land and the importance of the land, protection of the land, and what we used the land for. And why we feel so strongly when a mining company or junior company comes to our community or our region and says we would like to start drilling holes to see if you have any minerals. And we say no...There is a reason why we say no. And to actually want to know those reasons and respect those reasons is what true reconciliation looks like.

Unless First Nations have access and control over their territories for land-based activities, the state-led conventional approaches of resource management continues to cause suffering, which negatively impacts their treaty rights (Jojola, 2013; Mannell, Palermo, & Smith, 2013; Minkin et al., 2014), and impedes the journey toward healing and reconciliation. First Nations-led planning offers an opportunity to alter the modality of government programs and initiatives to meet the needs of the communities (Mannell et al., 2013). Such planning simultaneously enhances community capabilities to deal with the changes through building and strengthening partnerships, empowering peoples, negotiating for community agendas and making better decisions as per the community needs (Mannell et al., 2013).

'Revival of culture, economy and language' is expected from Indigenous land use planning as additional ways to achieve healing and reconciliation. Victor states:

The benefit [of Indigenous land use planning] will be the people will be proud of themselves ... It will help us financially. It will also give us that boost that we need that to pull up our socks and relive our culture, our way of life, and our language. That we think is all professional and academic in our culture and our way of life.

Indigenous land use planning offers hope for improving the financial capital of the community, culture, language (Mannell et al., 2013) and traditional subsistence activities (Minkin et al., 2014).

Indigenous governance. Indigenous governance is defined as the patterns and practices of exercising authority by Indigenous peoples to enforce customary laws that are inclusive, consensus-based and cohesive within the local context (Ladner, 2006).

Victor discussed the need for planning to lead to governance over their land and resources, stating:

Indigenous land [use] planning – number one [priority] is we have to regain what was there before, before the government. The reason why we want to do Indigenous land planning is for economic development. The way I have listened to our Elders spoke is that I never heard [they say] no [to progress], but they want to be a part of the decision making for developing industries.

Alex stressed the importance of community participation and leadership in territorial planning for healthy and prosperous Wasagamack future generations. Jerry viewed that collaboration opportunities with universities and experts prevail when governments listen to what communities want to achieve to reach *Mino Bimaadiziwin*. Jerry highlighted, “Give us a chance to develop our own governance ... we will be more successful than the government.” Indigenous leadership is key to ensure and strengthen Indigenous self-determination and to regain their control over their territories; such leadership and structures should flourish through Indigenous governance systems built on Indigenous history and knowledge (Cornell, 2013).

A long-term approach to planning. Community members considered the Wasagamack-led planning of their traditional territory as a long-term approach to

sustain their knowledge and value systems. Sharon's holistic perspective on land reflecting an Indigenous value system is evident in:

If we were given all the resources than the world and told you have unlimited resources to exploit your land and whatever you extract is yours, I don't know we would necessarily do it anyway. Our land is more valuable than what is underneath it. So it would take a lot of reassurance. Maybe not even reassurance, we would have to be very convinced that we are not going to destroy our land before we would do it even if we had the resources.

Clearly, this development path is founded on protecting the land and not exploiting the minerals that destroy both land and Indigenous livelihoods. In contrast to the approaches of external developers, the focus of Indigenous land use planning is to empower community members and youth through transferring traditional knowledge and skills. Victor stated:

They [Elders] will tell what to do, how to do, and where to do. So they have a lot of information being passed down through generations. That knowledge is over there. But the multi-corporations don't look at that. They just look at the money. And they don't care about destroying the environment or even cultures or way of lives. So what they [Elders] are saying in Indigenous land use planning there is a room for indigenous people get involved with their own land.

Community members described Indigenous land use planning as a means and a process to achieve community priorities for their *Mino Bimaadiziwin*. Lane (2006) also argues the planning approach to Indigenous communities is for them to identify their medium and long-term priorities. Indigenous land use planning simultaneously enhances community capabilities to deal with changes through establishing and strengthening partnerships, empowering peoples, negotiating for community agendas and making better decisions as per community needs (Mannell et al., 2013).

4.3.5 Barriers to Indigenous land use planning in Wasagamack First Nation. The community members identified the following as barriers: colonization, dominion policies, and mining and industries.

Colonization. Community members perceived colonialism still persists and affects their way of life; specifics included access roads, hydropower and grocery stores that offer little to community betterment. These imposed developments disturb the language and culture of Wasagamack people.

Without an airport or an all-weather access road, road construction should benefit a community; but when such construction is unwanted, the opposite happens. Community members saw an access road as having negative impact on the people, especially youth and culture. Cecilia affirmed, "To tell you the truth, I don't want roads coming into our community."

Harvey related the potential adverse effect of the road, especially given the influence of alcohol in the community, as, "It [road] won't be good for us. Especially what's going on this reserve. People are always trying to get alcohol and all that thing. That's why I am concerned about that access road." Although Wasagamack peoples would be able to purchase products at a lower price, community members raised their concern over social problems such as alcohol, drugs and gangs that could affect the people.

As well, Mary worried about wildlife if the road comes in, cautioning: "It [the road] is not a good thing for my animals there [trapline], my beaver and eagles all stay there. We get lots of rabbits over there." Likewise, Jerry recounted that the access road

caused more loss to the community due to strict enforcement of colonial law and policies. In Wasagamack, with increase accessibility, community members worried about the threats to their lands and territory and envisioned more interventions from government officials in hampering their privacy and rights as well (Simpson et al., 2007).

Despite most community members' objections to the road, Gary noted some positive aspects:

I would say half and half.... I am sure you guys went to the store in which you do would see a lot of prices that are so outrageous. Crazy. And we have no choice than to buy the stuff we need. I am sure, with the road, we could bring up cheaper stuff. We can get a lot of stuff like new housing materials. Of course, it is always the bad stuff. There is no way around it. We just have to try and control it.

The learning from the 'turning point' model of sustainable development, adopted by First Nations of the north and mid-coast of British Columbia, Canada, justifies the rationale of a community-led sustainable development approach to promote social harmony and minimize the negative consequences of development activities that benefit the community (Simpson et al., 2007, p. 81).

Dominion policies. Governments' policies are one set of the key challenges for Wasagamack First Nation to achieve their *Mino Bimaadiziwin*. Victor raised concerns about the top-down policies that affect their culture and way of life; policies that call for assimilation:

The barriers [to Indigenous land use planning] are the governments. The governments always come with different legislation. They don't ask First Nations what the planning is about. The governments are in their way. They try and do it in their way. But what is happening now is First Nations saying oh! They [First Nations] should be part of it. The barriers I see are the legislation made by the governments.

They [government] want us still to be in the dominant society. They want us to leave all our culture, our language ... My people are surviving. We still speak our language. We still live the way we live. All those that governments are shutting down our hunting, fishing, trapping, and everything ... They outlaw every ceremony we had and every ritual we had. They even tried to abolish our language with the direction they got from their dominant society policies, which were written down many, many years ago.

Victor noted that Wasagamack First Nation still retains the Ojibwe-Cree language and culture, which the community wants to integrate through Indigenous land use planning. He reiterated, however, that government policies enforced on their land pose barriers to Indigenous leadership. Colonialism continues to impact the Indigenous livelihood (Hayes & Cipolla, 2015), especially with its concerted moves to extract resources from Northern Canada (Hall, 2013), which undermines a subsistence economy.

Mining and industries. Community members were concerned about mining's damage to the environment and its impact on Wasagamack culture, animals and water. Cecilia questioned, "Where will my grandchildren live?" Jerry recalled the impacts on the environment and fish created by a past mining operation:

The mining company left drums of fuels on the lake. They flooded around and they blasted [the drums] onto the lake ... Sometimes, I saw the tanks with the drums were around and were taken to the land. Most of them were empty.

Mining runs a high risk of contaminating water and wild foods (Booth & Skelton, 2011), leading to negative consequences on community health and local biodiversity (Heber, 2005; Pufall et al., 2011).

The influx of mining and other industries impedes the land-based livelihood activities of the Wasagamack, particularly denying access to traplines. Harvey said, "I am concerned about what is going on there when they started doing mining and what's

going to happen to the animals and the water.” He expressed concern that mining and drilling expansion onto his territory may impede access to his trapline. Sharon clarified why community members were saying ‘no’ to mining and exploration despite mining companies’ efforts to expand into the Wasagamack traditional territory:

We have been approached twice, since I have been the chief, about mining development or potential exploration...When I go to the people, and I explain to them what these companies have come and asked, their response is no. We don't want that happening in our area. We do not want to see this kind of drilling right in our backyard. We don't want to see our waterways still being damaged. In fact, we are just recovering that's what they have said and to come back and do more damage.

Mining operations and construction of roads for mining have negatively impacted the habitat of wild animals that Indigenous communities depend on for their sustenance (Booth & Skelton, 2011; Heber, 2005; Place & Hanlon, 2011).

Mines and outside industries are a threat to the Ojibwe-Cree culture and livelihoods of Wasagamack First Nation. According to Alex:

There have been many instances in our area where outside industries are looking in to see what resources can be harvested from our areas. Those intrusions are impacting our traditional ways of life. It's impacting our culture...If industries are coming in, what do we get out of it? ... We see the introduction of industries into these areas detrimental to our existence. It will basically change us, our way of life, the way we hunted and gathered for our sustenance.

Likewise, Nora, pointing to maps, talked about the intrusion of sand and gravel mining claims on sacred sites:

The mining claims are right here... around Bigstone and Knight Lake, Wasagamack towards Garden Hill, and all the way down to Savage [Island]. They have those mine sites, right here.... The people have to say no. Those are sacred sites they shouldn't touch them, but already there are mine claims.

When Industries operate in the Indigenous territories, mines and industries restrict access to these areas (Heber, 2005). Land is important for Indigenous culture and language to flourish; distortion of traditional territory, by mining and other industries, heightens the risk of cultural erosion in Indigenous communities (Heber, 2005). Although local people may be employed in the mines, they would not have sufficient time to embrace their culture and language and interactions with Elders (Nightingale, Czyzewski, Tester, & Aaruaq, 2017). Although some Indigenous people do get jobs, frequently all or most jobs go to outsiders, subjecting the nearby First Nations communities to little or even negative economic and other impacts. Without revenue sharing agreements in place or required in Manitoba, First Nations have limited or no benefit.

4.3.6 Summary. In summary, Wasagamack community wants to achieve *Mino-Bimaadiziwin* (i.e., a good life) by fulfilling their priorities identified as healing, community economic development, the revival of language and culture, and Indigenous governance (Figure 29). They aspire to achieve these priorities by protecting their land and transferring ancestral teaching to the younger generation, which are the key assets of the community. However, policy and institutional barriers – the result of continuous colonialism and industrial development– are hindering the Indigenous people to fulfilling their goals.

The results of mapping and video interviews signify the discourse for ensuring access to and control of the traditional territory of Wasagamack by Wasagamack people through Indigenous governance and Indigenous land use planning. The results strongly

support revisiting the existing policies and institutional mechanisms of provincial and federal governments that create obstacles to the Indigenous governance of Indigenous territories. Fulfilling community needs and priorities in the long term contributes to transforming *Iskonigaan Bimaadiziwin* (reserve life) to *Mino Bimaadiziwin* (good life).

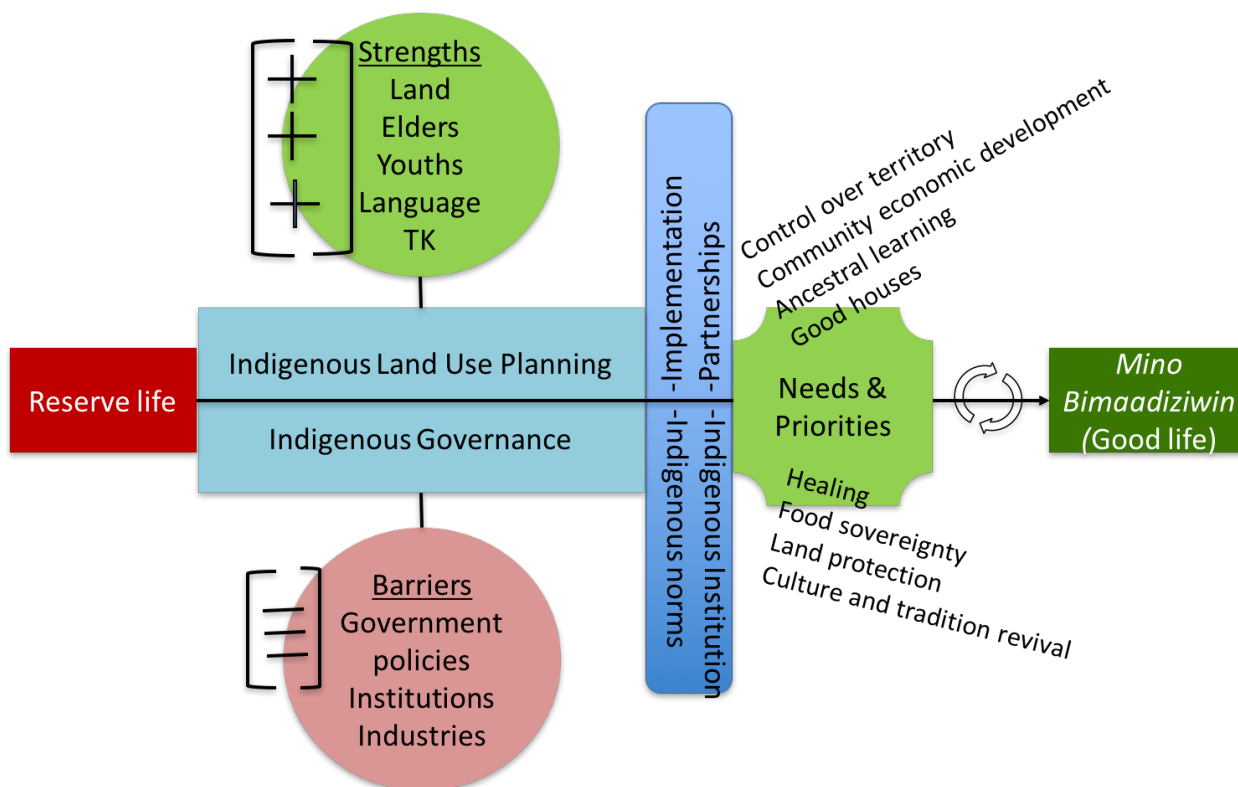


Figure 29. Summary of the results of video interviews

4.4 Policy Implications: Indigenous Land Use Planning

Indigenous land use planning has a pivotal role in molding community priorities through the leading role of local community to protect and manage their lands and territories. Nadasdy (1999) argues for significant changes in the current government policies and institutional arrangement to foster Indigenous people's decision making of natural resources and land in their territory. Community-led planning approaches

promote social harmony and minimize the negative consequences of development activities that benefit the community (Simpson et al., 2007). Indigenous land use planning can help decolonize colonial policies (Manitoba Indigenous and Northern Relations, 2018; Mannell et al., 2013; Simpson et al., 2007).

Indigenous land use planning differs from the land use planning approaches of federal and provincial governments by being community-driven (Table 1). Ideally, the Indigenous planning process can genuinely integrate scientific innovations and multiple partnerships with other communities, universities, private sectors, governments and individuals (Manitoba Indigenous and Northern Relations, 2018) and integrate Indigenous knowledge systems.

Table 1: *Indigenous land use planning versus government land use planning*

| Criteria | Land Use Planning (LUP) | | |
|-------------------|---|---|---|
| | Indigenous LUP ¹ | Federal LUP ² | Provincial LUP ³ |
| Area for planning | Traditional territory (at least beyond reserve) | First Nation Reserve | Crown Land |
| Consultation | Consultation and participation of community members | Consultation with chief and council | One way or poor consultation |
| Focus | Community development, Indigenous and ancestral teaching, the revival of culture and language, <i>Mino Bimaadiziwin</i> | Economic development led by market and external economy | Industrial development such as mining, lumber, and hydropower |
| Partnership | Multiple partnership possibilities with other communities and stakeholders such as universities | Priority to the private sector | Priority to the private sector |
| Leadership | Local/Indigenous community | Government and consultants | Government and consultants |

Sources: ¹ ILTC land use planning workshop and views of community members

² <https://www.aadnc-aandc.gc.ca/eng/1100100032790/1100100032794>

³ The Planning Act and Provincial Planning Regulation of Manitoba

Indigenous land use planning applies an Indigenous worldview and knowledge system to manage the resources in the territory. Provincial and federal governments, however, do not have adequate mechanisms to understand these worldviews and Indigenous knowledge systems (Nadasdy, 1999). Fragmentation in planning results from the federal government's jurisdiction being only on the reserve land while the Provincial government's authority is on provincial Crown land in Canada (Porter & Barry, 2016). Indigenous land use planning includes the entire territory of Indigenous communities, including the reserve, Crown Land, and the land not ceded to the Crown and not covered by their Treaty.

Recognition of historical Treaties signed between the Canadian government and Indigenous nations is required to integrate both Treaty and Indigenous rights agreed to in UNDRIP in land use planning (Manitoba Indigenous and Northern Relations, 2018). As Ovide Mercredi emphasized in his speech, Indigenous rights to Indigenous territories should be ensured through the true interpretation of the original intent of the Treaty negotiation between the Indigenous and non-Indigenous nations by reflecting the written text and the oral understanding of the Treaties transferred from Indigenous Elders (University of Manitoba, 2015). A critical role of governments is to recognize the Indigenous rights in Indigenous peoples' traditional territory considering the original intention of Indigenous nations to share their land through the Treaties but also to maintain *Mino Bimaadiziwin* (Hostetler, 2018). Sneed (1989) also suggested the importance of community empowerment and the strengthened capability of Indigenous governments to implement sustainable development planning in northern Canada. Also,

UNDRIP Article 29 states the role of government to support the priorities of Indigenous communities:

Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for Indigenous peoples for such conservation and protection, without discrimination. (United Nations, 2008 Article 29-1)

Clearly, meaningful consultation by the government that prioritizes First Nation land planning in their traditional territory is needed. Yet government policy, such as the Indian Act of Canada, does not provide an enabling environment for Indigenous people to implement their Indigenous rights, as agreed to by the Canadian government in UNDRIP. As a signatory to the UNDRIP, Canadian governments should amend the existing policies and legal provisions – the Indian Act and other provincial acts, policies and regulations – that restrict Indigenous peoples to use their traditional/ancestral territories. Also, governments should allocate more technical and financial resources and establish new institutions to enable Indigenous land use planning by Indigenous communities, to initiate government-to-government relationships between governments and Indigenous nations.

The real intent of Treaty relationship is to recognize Indigenous and non-Indigenous government as co-existing, equal, and self-governing (Tully, 1999). Government laws and policies remain as barriers to achieve reconciliation because they do not promote communities' access to and control of their traditional territories. Instead, Indigenous communities are marginalized through corporate-controlled resources developments (Simpson et al., 2007). Manitoba can learn from the experience

of British Columbia's Central Coast Land and Resource Management Plan. In this instance, Indigenous communities have been involved in decision-making and claiming their Indigenous rights through a 'government-to-government relationship' between Indigenous nations and the provincial government (Barry, 2016, p. 174). The shift from a government-to-stakeholder relationship to government-to-government between the British Columbian government and Nanwakolas Council strengthens the governance of Indigenous territories by Indigenous nations (Barry, 2016) and serves as a positive example for Manitoba to follow.

4.5 Final Reflection

Achieving *Mino Bimaadiziwin* requires fulfillment of community needs and priorities through reinforcing community strengths and Indigenous-based policies and planning. Figure 30 summarizes the five themes of the study. Wasagamack's strengths lie in their traditional knowledge and territories such as land, water, and resources, which need to be maintained and nurtured. Wasagamack also has Elders who are ready to guide youth; youth who are ready to learn from Elders. Wasagamack desires to fulfill its needs and priorities through developing a local economy, exercising control over their territory, promoting community healing and engaging in self-government. These desires need to be realized and sustained to achieve *Mino Bimaadiziwin*. Government policies and institutional structures, however, are the key barriers to Wasagamack-led land use planning to enhance their strengths and to actualize their desires. Thus, essentials, such as friendly policies and laws, and an Indigenous governance system established through Indigenous land use planning, need to be in place.

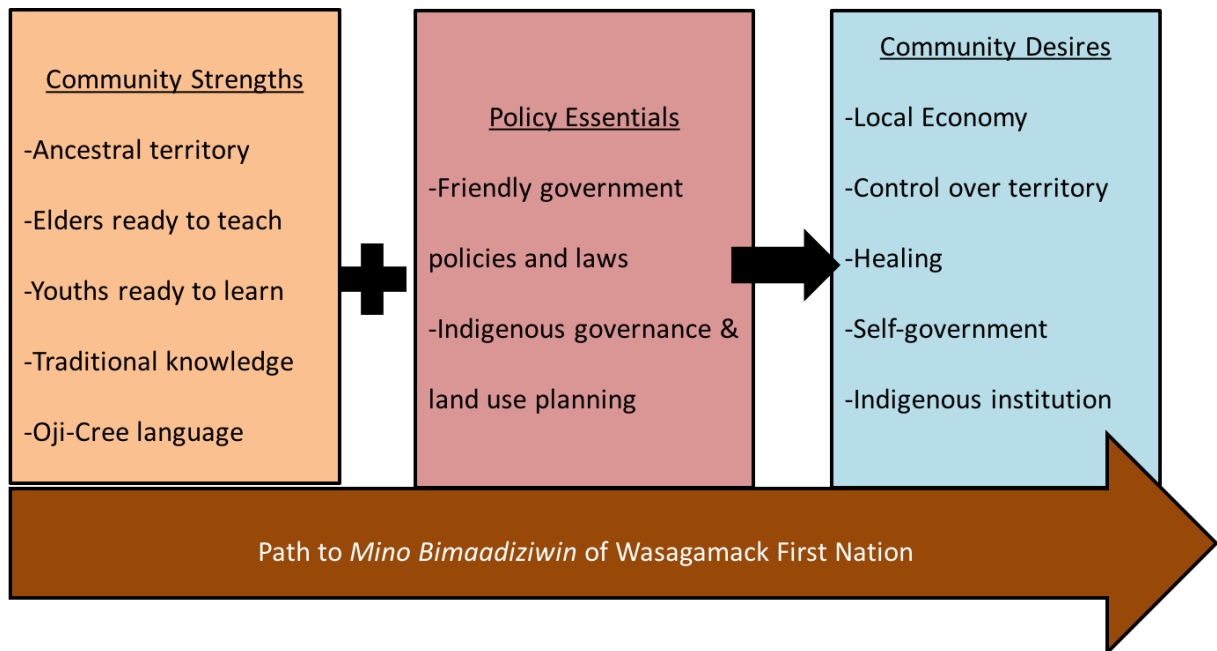


Figure 30. Path to *Mino Bimaadiziwin* of Wasagamack First Nation

To sum up, the research explored the land use, community priorities and the role of Indigenous land use planning for *Mino Bimaadiziwin* of Wasagamack community members. Using the land use data and community interviews, the research narrated how Wasagamack community members used their traditional territory and wanted to use and protect their territory to fulfill their food, shelter and cultural needs (Smith, 2001). Guided by an Indigenous research paradigm, the research synthesized the opportunities and strengths of Wasagamack First Nation and pinpointed the barriers that hinder the strengths and opportunities, to achieve self-determination and *Mino Bimaadiziwin* (Wilson, 2008). The research paradigm and approach of inquiry applied in this research, and in the context of Wasagamack First Nation, have provoked me to carry out traditional ecological knowledge documentation of my community back-home and to contribute to and learn from the land use planning initiative of ILTC as well.

Chapter V: Conclusion and Recommendations

The research documented land use, community priorities, and the relevance of Indigenous land use planning to Wasagamack First Nation, using the data from 49 traditional land use map biographies and perspectives of 10 Wasagamack community members. The land use of 49 Wasagamack community members goes far beyond the reserve land and registered traplines in their traditional territory, which is essential to fulfilling their food, shelter and cultural needs. Statistically significant land use hotspots in the territory were identified for different land uses; the hotspot maps are draft for community use only and are based on limited participants.

Wasagamack-led land use planning of the traditional territory has the potential to play an important role to protect Indigenous lands and culture, as well as to build Indigenous sovereignty. Interviews with the ten community members reveal the Wasagamack priorities for its traditional territory as: community healing, cultural and language revival, and community economic development. These interviews identified ancestral land, Elders and youth as the key assets/strength to reinforce their Ojibwe-Cree livelihoods for *Mino Bimaadiziwin*. The Wasagamack community members want to build on their strengths, but policy hurdles for achieving self-government need to be amended. The hope is that Indigenous land use planning, therefore, is a means or process through which Wasagamack community members transform their *Iskonigaan Bimaadiziwin* (i.e., reserve life) to *Mino Bimaadiwin* (i.e., good life).

Resource planning in Canada has a non-Indigenous value system, protecting the economic interests of state and private companies (Thomas, 2016). Government policies

related to land planning and land tenure should be revised to acknowledge Indigenous rights and have Indigenous peoples in the center of planning of their traditional territory (Barry, 2016). Government should be asked to integrate an Indigenous worldview and value system related to resource planning and provide workers with an orientation to this view (Barry, 2016).

Experiences from medium to low-income countries show that the government-controlled resource management approaches are ineffective, compared to giving Indigenous people and local communities the rights to own and the leadership to manage their territories (Tauli-Corpuz et al., 2018). In those countries, ensured rights of Indigenous peoples through Indigenous governance has improved the results of biodiversity conservation by fulfilling the aspiration of Indigenous communities (Tauli-Corpuz et al., 2018). Particularly in Manitoba, Indigenous land use planning will open up a path for Indigenous sovereignty and reconciliation through recognized rights of Indigenous communities. Canada does not have to go that far to learn. Learning from British Columbia's move to strengthen Indigenous governance in the traditional territory through a government-to-government modality can be helpful for promoting Indigenous governance in Manitoba and other provinces of Canada (Barry, 2016).

Increasing more dialogue with the community members directly would have helped this research and ensured that the research was helpful to the community. Data available in the database was limited; inclusion of more community members in land use mapping and semi-structured interviews would have provide additional evidence on the land use of Wasagamack and significance of Indigenous land use planning to

Wasagamack First Nation. At personal level, the research enhanced my learning on Indigenous research paradigm and Indigenous world views with regard to the significance of lands and resources for Indigenous communities. At community level, the documentation does suggest ways for communities to negotiate for reclaiming their traditional lands and argues why an Indigenous land use planning will lead towards the government-to-government model of Wasagamack traditional territory. This research also strengthens the position of Wasagamack First Nation to discuss and debate why resource extraction in their territory conflicts with their land use. Wasagamack can also refer to this study to decide on whether, or how, they want to be included in the future potential expansion of the area of Pimachiowin Aki, the recently declared mixed World Heritage site in the south of Island Lake.

This research is a first attempt at political and scientific discourse on the use of Indigenous land use planning in northern Manitoba. Already, ILTC has begun comprehensive mapping of the traditional territory of Wasagamack, Garden Hill, St. Theresa Point and Red Sucker Lake First Nations. Potential future research areas identified by this research are:

- Creating a videotape with all the stories and experiences of Elders and community members compiled to help document the land use planning journey of First Nations of Island Lake in a way that is community-accessible.
- Analyzing the overlap of mining and other claims for development in the Island Lake peoples' territory with existing land uses, hot spots and density areas.

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Appendix A

Land Use Mapping Interview Guide

Date: _____

Location: _____

Interviewee: _____

PIN: _____

Interviewers: _____

Interview Guide for interviewing Elders for educational purposes

Semi-structured interview questions with Elders and others knowledgeable people about the land (40 to 60 people in each First Nation – both males and females)

Initial contact with people will be through a community co-ordinator who is aware of who are some active harvesters or traditional harvesters. The co-ordinator will state their name, purpose of the interview, and request a time and place to meet with them if they are willing to participate. Potential participants will be provided a written consent form. These videotapes are for a participatory video (a set of techniques that involve a group or community in shaping and creating their own film to explore issues and share their stories). Parts of the video will be used for educational purposes.

Please note that the following questions have also been viewed by the research advisory committee.

The following list provides a structured interview protocol that community researchers will follow to allow for credible mapping:

Part 1

1. What is your date of birth? Where were you born? Your parents' names? Mother's maiden name?

Part 2

Maps will be used and the interviewee will be asked to mark areas.

In this part I am going to ask questions about places you or other _____ FN people have stayed overnight while trapping, hunting, fishing, gathering, travelling or working in the bush.

(note all overnight sites are going to be mapped as points).

2. I'm now going to ask questions about places you or other _____ First Nation people have stayed overnight while trapping, hunting, fishing, gathering, travelling or working in the bush.

3. Did you ever build or help build a cabin? If yes indicate the spots. Who owns (or owned) that cabin? Are the cabin walls made of logs or plywood? Did you ever sleep overnight in that cabin? Do people still stay overnight in that cabin or it abandoned?

4. Did your brother or other relatives build a cabin? If yes indicate the spots. Who owns (or owned) that cabin? Are the cabin walls made of logs or plywood? Did you ever sleep overnight in that cabin? Do people still stay overnight in that cabin or it abandoned?

5. Did you ever build a SHACK-TENT? If yes indicate the spots. Who owns (or owned) that cabin? Are the cabin walls made of logs or plywood? Did you ever sleep overnight in that cabin? Do people still stay overnight in that cabin or it abandoned?
6. Did your brother or other relative ever build a SHACK-TENT? If yes indicate the spots. Who owns (or owned) that cabin? Are the cabin walls made of logs or plywood? Did you ever sleep overnight in that cabin? Do people still stay overnight in that cabin or it abandoned?
7. Are there any places you have slept overnight in a tent with a wood-burning stove. If yes indicate some spots. Whose tent was it?
8. Are there any places that you stayed out overnight in a tent that didn't have a wood-burning stove in it? If yes, indicate some spots.
9. Are there any places that you stayed out overnight under a Lean-to or under a tarp? If yes, indicate some spots.
10. Are there any places that you stayed out overnight under the stars? If yes, indicate some spots.
11. Are there any places you stayed overnight in any kind of other overnight structure? Examples might be a forestry company building, a tourist camp or in a vehicle or boat. If "yes" indicate some spots. What did you sleep in at each spot?

Part 3

We're now going to talk about trapping.

12. Have you ever done trapping anywhere on these maps? By trapping, we mean the setting of any kind of trap or snare for any kind of furbearers, but not including rabbits or bear. If 'yes' please indicate the areas.

13. Have you ever trapped and killed beaver? If yes indicate some spots.

14. Have you ever trapped and killed muskrat? If yes indicate some spots.

15. Have you ever trapped and killed other species than rabbits or bears for use for clothing or food?

Part 4

I'm now going to ask questions about where you killed different kinds of animals – fish, birds and mammals. For this part of the interview we want to map only places where you killed animals or feed your family or community. 1) we only want to map spots you killed animals and took some home for eating purposes. 2) we don't want to mark a spot where you killed animals for commercial or peddling purposes unless you also took some home to eat. 3) we don't want to mark spots where you killed animals for tourists while you were guiding, unless you took some of the meat to eat. 4) we don't want to mark spots where you shot an animal but couldn't find it to take home. 5) we don't want to mark spots where you killed animals that were used only for dog food or trapping bait. Only places where you killed animals to eat.

NOTE: all animal-kill sites are to be mapped only as points, not lines or polygons.

16. Are there any places that you killed Lake trout or sturgeon and took some home to feed your family? If yes, indicate some spots.

17. Are there any places that you helped check a domestic net, where you killed fish and took some home to feed your family? If yes, indicate some spots.

18. Are there any places that you helped check a commercial net, where you killed fish and took some home to feed your family? If yes, indicate some spots?

19. Are there any places that you used a rod and reel or any kind of hook and line gear, where you killed fish and took some home to feed your family? If yes, indicate some spots.

20. Are there any places that you used any kind of different gear, where you killed fish and took some home to feed your family?

21. Are there any places you killed ducks (including scoter) or geese or swans to feed your family? If yes indicate some spots.

22. Are there any places you killed waterhen (coots) or Loon or merganser or sandhill crane to feed your family? If yes indicate some spots.

23. Are there any places you killed grouse or ptarmigan to feed your family? If yes indicate some spots.

(indicate the code, and the kind of bird for all Ob sites, in the IRF or on your scribble pad.

24. Are there any places you collected bird eggs to feed your family? If yes indicate some spots. What kind of eggs did you collect at each spot?

25. Are there any places you killed moose or bear to feed your family? We are not interested in marking places you killed these animals for tourists, unless you took some meat home to feed your family. If yes indicate some spots.

26. Are there any places you killed caribou or deer to feed your family? If yes indicate some spots.

27. Are there any places you killed rabbit or porcupine to feed your family? If yes indicate some spots.

28. Are there any places you shot (not trapped) and killed beaver or shot and killed muskrat to feed your family? If yes indicate some spots.

29. Are there any places you killed any kind of other mammal that your family ate? Examples might be lynx, squirrel and groundhog. If yes, indicate some spots.

Part 5

I'm now going to ask questions about where you collected different kinds of plants and wood for direct family use. We don't want to mark spots where you collected plants or wood for commercial or peddling purposes.

Plant, wood and earth-material collecting sites are to be mapped as points, lines or polygons, depending on the extent of the area the respondent actually collected the plant or material. Remember we are mapping harvesting sites. We are not mapping habitat. We are not mapping the presence or absence of the resource.

30. Are there any places you collected berries to food your family? We don't want to mark spots where you collected berries for commercial sale unless you took some for your family to eat. If yes indicate some spots. What kind of berry did you collect?

31. Are there any places you collected medicine plants? If yes, indicate some spots. What kind of medicine plant did you collect at each spot?

32. Are there any places you collected Moss for things like chinking cabin logs, insulating ice houses, using in baby diapers? If yes indicate some spots? What did you use the moss for?

33. Are there any places you collected peat for gardening or other purposes? If yes indicate some spots? What did you use the moss for?

34. Are there any places you gardened? If yes indicate the areas?

35. Are there any places you collected specialty wood? These are wood collected specifically for making particular tools or utensils, like birch for snowshoe frames or tamarack for toboggans. If 'yes' indicate some spots. What kind of wood did you collect at each spot, and what was made with it?

36. Are there any places you collected construction wood? Examples might be logs for building a cabin or poles for making a dock or smokehouse. If 'yes' indicate some spots. What was built?

37. Are there any places you collected firewood for heating a building, cabin or shack-tent? If yes, indicate some spots. We don't want to mark spots where you cut wood for commercial sale, unless you used some for your own family's heating needs.

NOTE: do not mark sites where used only for cooking fire or at temporary overnight site like a tent or lean-to.

38. Are there any places you collected OTHER plant or wood for direct family use? An example might be a plant or wood used for doing rituals or ceremonies or for tanning hides or for making a dye to colour things or for making smoking tobacco. If yes indicate

some spots. What kind of plant or wood did you collect at each spot and what was it used for?

39. Are there any places you collected soapstone? If yes indicate some spots. What kind of plant or wood did you collect at each spot and what was it used for?

40. Are there any places you collected any EARTH MATERIAL for direct family use? These are soils, sand, clay and rocks that are used for things like building dock cribs, cabin foundations, fireplaces and gravel for making cement. If yes, indicate some spots. What kind of material did you collect at each spot and what was it used for?

Part 6.

I'm not going to ask questions about other kinds of cultural sites. For all the questions about animals and plants up until now we've only been interested in places where you personally harvested things, anytime in your lifetime. For the rest of the questions) we're interested in marking sites you know about, even if you did not personally use them.

w) we want to mark sites, even if they were before your time, as long as you know for sure that the site was used by your First Nation people in your lifetime, or in the lifetimes of your parents or grandparents. If a site was only used farther back in time than that, then we won't mark it.

41. Do you know of any settlements? These are places where different families had cabins and lived together for a period of years, more or less on a year-round basis. If yes indicate the sites.

42. Do you know of any gathering places? There are places where different families came together at a particular time of year, and camped together in tents for a period of days for purposes of harvesting a particular resource or for a special social event. If yes indicate the sites.

43. Do you know of any heritage cabin sites? A heritage cabin is an abandoned cabin that was built by your parents or grandparents or any other old people of their generation - -and whether it was built either before you were born or when you were a child. It doesn't matter, whether the cabin is still standing or has rotted away. If yes indicate the spots. Who owned the cabin?

44. Do you know of any burials out on the land - -places where a First Nation person was buried? If yes, indicate the sites. Who is buried there?

45. Do you know of any birth sites out on the land – places where your First Nation person was born? If yes, indicate the sites. Who was born there?

46. Do you know of any death sites out on the land – places where a person from your First Nation passed away? If yes, indicate the sites? Who died there?

47. Do you know of any legend or spirit sites out on the land? These are places or landforms that people associate with a particular legend or spirit. If yes, indicate the sites. What do you know about the place?

48. Do you know of any sacred areas out on the land? These are places that are sacred to your family or community and they can be sacred for any reason. If yes, indicate the sites. What is sacred about that place?

49. Do you know of any other cultural sites that we should map? Examples might be trading posts, rock painting or ceremony sites. If 'yes' indicate the sites. What kind of site is it?

Part 7

50. Where are the places you visited where ecological knowledge of habitats and sites critical to the survival of important animal populations; for instance, caribou migration corridors, islands where moose calve, waterfowl breeding grounds and staging areas, and spawning beds.

51. What are the legends and other accounts about specific places?

52. What are the Travel and trade routes that you have travelled and are important?

53. What are the Swampy Cree, Ojibway- Cree or Anishinaabee place names?

54. What areas should be protected where no development should occur?

55. Are there any areas that would be acceptable to develop for industrial or commercial uses?

56. Are there any areas that would be acceptable to develop for tourism?

57. Are you aware of any impacts of the current proposed road location? (show map of proposed rout)

58. Are you aware of any impacts of any proposed development?

59. What are the key lands that have to be protected for seven generations and your grandchildren?

60. Do you have any photos of yourself on the land or your family, grandparents – that we could photograph or scan for an archive or for inclusion in a video?

61. Is there anything or place you would like to see in the video that shows the importance of this land or traditional land uses?
62. Have you any place, artifacts, traditional tools or artwork or crafts you would like to show us that help explain traditional culture and land use?
63. What do you see as the area of this First Nation community's traditional land use?
64. What do you see as the area the First Nation community's occupancy?

Videotaping subjects:

Videotaping will stop if anyone who has not signed a consent form enters the frame. If, after viewing the tape, we have found that we have unwittingly included a frame with a non-consented individual(s), we will either not use the shot or will blur the image of the individual.

Appendix B

Name of the community members involved in land use mapping

| S.N. | Name | Sex | | | |
|------|---------------------|--------|----|--------------------|------|
| | | | 34 | Martin Glen Harper | Male |
| 1 | Allan Wood | Male | 35 | Rod Harper | Male |
| 2 | Theresa Harper | Female | 36 | Gary Knott | Male |
| 3 | Adam Knott | Male | 37 | Paul Harper | Male |
| 4 | Epstein Knott | Male | 38 | Jonas Harper | Male |
| 5 | John Mason | Male | 39 | John Knott | Male |
| 6 | Brian Harper | Male | 40 | Michael Harper | Male |
| 7 | Jose McDougall | Male | 41 | Joerge Knott | Male |
| 8 | Dominic Wood | Male | 42 | Macdonald Harper | Male |
| 9 | Joseph Harper | Male | 43 | Jerry Wood | Male |
| 10 | Frankey Harper | Male | 44 | David Harper | Male |
| 11 | Soloman Wood | Male | 45 | Richard Mason | Male |
| 12 | Sidney Wood | Male | 46 | Harvey Harper | Male |
| 13 | Mary Wood | Female | 47 | Abraham Roy Harper | Male |
| 14 | Eva Knott | Female | 48 | Harvey Dale Harper | Male |
| 15 | Boby Knott | Male | 49 | Thomas Harper | Male |
| 16 | Norman Wood | Male | | | |
| 17 | Alpheus Harper | Male | | | |
| 18 | Joseph R. Harper | Male | | | |
| 19 | Alpheus Knott | Male | | | |
| 20 | Jack Harper | Male | | | |
| 21 | Elvin Knott | Male | | | |
| 22 | Gilbert Monias | Male | | | |
| 23 | George Harper | Male | | | |
| 24 | Eli Harper | Male | | | |
| 25 | Albert Harper | Male | | | |
| 26 | Sally Harper | Female | | | |
| 27 | Rodger Brian Harper | Male | | | |
| 28 | James Knott | Male | | | |
| 29 | David G Wood | Male | | | |
| 30 | Ronnie Little | Male | | | |
| 31 | Isias J Harper | Male | | | |
| 32 | Randy Wood | Male | | | |
| 33 | Ella Jane Knott | Female | | | |

Appendix C

Consent Form of Semi-Structured Video Interview

**Natural Resources Institute**

Clayton H. Riddell Faculty of Environment,
Earth, and Resources

CONSENT FORM

NRI Contact Details
including address,
phone and fax number

INTRODUCTION: You are being asked to take part in a research study regarding traditional land use and ancestral occupancy for your community to develop a land use plan for crown land with the University of Manitoba funded by Social Sciences and Humanities Research Council. Before you give your consent to be a participant, it is important that you understand what your participation would involve. Please ask questions if there is anything you do not understand.

PURPOSE: The purpose of this research study is to develop a land use plan for crown land by your First Nation that respects traditional land use and ancestral occupancy. The information gathered from these videos may be used as educational material. Upon your consent, we hope to use your name to accompany your presentation. In the case that you want anonymity all personal information such as names will be changed to keep your confidentiality, however, because your likeness (face) will be on camera, there is the chance that someone watching the video may recognize you. Alternatively, we could use your audio only with other images showing on the screen.

STUDY PROCEDURES: If you choose to participate in this study, you will be asked to answer some questions related to your traditional land use and ancestral occupancy for your community to develop a land use plan for crown land. The interview will be participant led – but the theme will be discussed beforehand. Your story and answer to questions will be videotaped and notes will be taken and locations mapped. If a videotape recorder is used sections of your story or answer to questions may be spliced with other images to create a video about traditional land use and occupancy. Images with your voice over may be used, such as a picture of plants that you are discussing or maps. The anticipated time required for your interview session will be approximately two hours but may take further time or future interview, with your consent, with no extra funding available. The community co-ordinator and/or researcher will take notes, maps and video and will be in charge of this data. These researchers have signed a confidentiality agreement to not discuss the information gathered during the interview.

RISKS: If you consent to use your names on the maps and in text this information will be referenced to you. If you consent to have us use both your audio and visual data, you will be identifiable in the video and so should only discuss information that you wish to make public. Only data approved by the Elders council and chief and council will be released outside of the community. We realize that this data must be protected as if data does get out some sacred or hunting sites may be targeted by the public.

BENEFITS: You will be helping create a land use plan, a summary map of land uses and report and create an educational video about your community's ancestral occupancy and traditional land use.

CONFIDENTIALITY: Information gathered is non-invasive. Access to the information will be through the community co-ordinator as directed by the Elder council and chief and council. The video will be edited to tell a short story about your community – through participatory workshops. Copies of the video will be provided to communities and potentially shown on YouTube and by your community for promotion and for a historical record of land use.

FEEDBACK: You will have the opportunity to review the maps, text and video in a community showcase where feedback will be obtained before it is released.

WHO TO CONTACT: If you have any questions about this study, contact Dr. Shirley Thompson, (thesis advisor) at (phone number) or (another phone number) during business hours (M-F, 9:00 A.M. - 5:30 P.M.). In addition, if you have any questions as to your rights as a research participant, please contact the Human Ethics Secretariat at (phone number) at the University of Manitoba.

VOLUNTARY PARTICIPATION/WITHDRAWAL: Your participation in this research study is strictly voluntary. You may refuse to participate or may choose to not have video recordings only notes or audio. By providing your signature below, you agree to have the researchers and the videographer videotape your responses for the purposes of making a video. If you agree to participate in this study, you are also agreeing to provide information and allowing the band to use it for the best interest of the community.

CONSENT TO PARTICIPATE

I know that my participation in this study is voluntary and that I have the right to refuse to participate.

CONSENT: I have read all of the pages of this consent form and have been given an opportunity to ask questions about this study. Answers to such questions (if any) were satisfactory. I am eighteen years of age or older and freely and without reservation give my consent to serve as a participant in this study.

By signing this form, I have not given up any of my legal rights as a research participant.

Participant's Name Printed: First Middle Initial Last

Participant's Signature Date

Signature of Person Conducting Consent Discussion Date



Consent for video use



Consent for your information attributed to your name.

Please provide your contact address and contact information below if you would like to receive a summary of the interview findings and a copy of the video.

Appendix D

Checklist of Semi-Structured Video Interview used

- Tell me about yourself and your involvement in your territory.
- How is land important to you and your community?
- What areas should be protected where no development should occur?
- Are there any areas that would be acceptable to develop for industrial or commercial uses?
- Are there any areas that would be acceptable to develop for tourism?
- How do you see mining and development in your community?
- How will mining impact your territory?
- Are you aware of any impacts of the current proposed road location?
- What impact do you expect the road to have in short, mid and long term?
- Are you aware of any impacts of any proposed development?
- Do you have ideas for development?
- What were the main local concerns/reservations about those projects?
- What are the key lands that have to be protected for seven generations and your grandchildren?
- What areas and programs does the community need to be healthy?
- What does a healthy food environment look like to you?
- What do you think is important for children to know about?
- What are the barriers of using your territory?

- How do you see land use planning in your territory?
- How do you want to govern your territory?
- Do you have any photos of yourself on the land or your family, grandparents – that we could copy for an archive?
- Is there anything or place you would like to see in the video that shows the importance of this land or traditional land uses?
- What do you see as the area of this First Nation community's traditional land use?
- What do you see as the area the First Nation community's occupancy?