

The University of Manitoba

**The Skownan First Nation Model For Sustainable Development
And Aboriginal Stewardship**

By

Karen S. E. Stock

**A Thesis submitted to the Faculty of Graduate Studies in Partial
Fulfillment of the Requirements for the Degree of
Doctor of Philosophy**

**Department of Environment and Geography
Winnipeg, Canada**

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The Skownan First Nation Model For Sustainable Development And Aboriginal Stewardship

Abstract

This dissertation defines the 'Skownan Model.' It is a model of sustainable Aboriginal land / resource development and management. There is increasing demand to find alternative solutions to natural resources allocation and management in Canada. Aboriginal communities play an increasingly more dominant role in these issues due to their special role in Canadian society. They have distinct historic developments, administrative bodies and legal frameworks that are different from other rural communities in Canada. Managing natural areas to maintain bio-diversity and ecological integrity while gaining economic returns from renewable resources is increasingly challenging in a global economy.

The main objective of this research was to develop the 'Skownan Model' in order to engage in devising strategies pertaining to anticipated land and resource developments within Skownan's traditional land-use territory. The model presents a synthesis of the theories of sustainable development and Aboriginal worldview. Sustainable development is founded in the philosophy of using resources to meet present and future needs. Fundamental to Aboriginal worldviews is the spiritual core of human existence on earth in close relationship to the land with all its resources. In the view of Skownan First Nation, if the land is cared for it will always provide. The Skownan Model at its core involves using protected area status as a legal vehicle to ensure sustainable use of traditional lands. This dissertation contains a number of research components that build the model. The research and the researcher are part of the research process. This is part of advocacy research. In the Canadian context advocacy research often supports Aboriginal communities

Following a traditional land-use study, an environmental impact assessment, participation in the Clean Environment Hearings in the fall of 1997, an archaeological survey and active involvement in the 'Action Plan for Manitoba's Network of Protected Areas', Skownan First Nation was successful in redirecting the proposed resource extraction plan to one of resource protection. Skownan First Nation managed to achieve modification of the external development plans to more appropriately accommodate its needs and values. Establishing a solid foundation of scientific information was fundamental to this process. This dissertation summarizes a number of research projects that were conducted over the years and illustrates the developments in chronological order. The community-based research process led to the development of 'The Skownan First Nation Model for Sustainable Development and Aboriginal Stewardship' (in short the Skownan Model).

Skownan First Nation has made important contributions to sustainable development with multiple natural resources developments in the Skownan Resource Area. The establishment of the Skownan Fur Block, development of the Chitek and Inland Lake Fisheries, the establishment of the Chitek Lake Wood Bison Herd and the Chitek Lake Interim Protected Area are analyzed.

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I also would like to mention the late Gordon Moosetail from Pine Creek First Nation (a neighbouring community) with whom I spent much research time 'in the bush' in order to gain some understand in the 'Aboriginal way of life.' The times spent on the land in all seasons were amazing. It has shaped me in a different way than I could have ever imagined. It was also Gordon and his family who introduced me to the spiritual aspects in First Nation culture.

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This dissertation is dedicated to the people of Skownan First Nation and the Chitek Lake
Wood Bison.

In loving memory of
Dr. Harvey Payne

The Skownan First Nation Model For Sustainable Development And Aboriginal Stewardship

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Chapter I

1.1 Introduction

This dissertation defines the 'Skownan Model.' It is a model of sustainable Aboriginal land / resource development and management. It contains a number of research projects that facilitated alternative land developments envisioned by Skownan First Nation in contrast to industry and government proposed resource and land developments.

Skownan First Nation is located 288 kilometers northwest of Winnipeg (Figure 1). The community was formerly known as Waterhen First Nation. In the spring of 2000, the name was changed to create a distinction from the non-reserve community of Waterhen. The people are of Ojibwa (Saulteaux) culture. In their language they call themselves 'Anishinaabe' which means 'the people'. The total registered population amounts to 1131 people: 636 people (311 women and 325 men) live on-reserve and 495 (250 women and 245 men) reside off-reserve (First Nations Profiles 2004).

The Waterhen area forms the northern agricultural limit for this part of the province, where the main agricultural activity is cattle ranching (Stock 1996, p. 10). North of the agricultural zone is forested land, classified as unoccupied Crown land. The resource development proposals by Skownan First Nation as well as those proposed by the Manitoba government and industry of the forested land north of the agricultural zone are the focus of this research. The use and allocation of this land and the relationship of Skownan First Nation with this land is central to this dissertation.

In a previous traditional land-use study the traditional land-use territory was mapped and is referred to as Waterhen Resource Area (Stock 1996, p. 15-19). With the First Nation name change, Waterhen or Skownan Resource Area become interchangeable. It is referred to as Skownan Resource Area throughout this dissertation. The people of Skownan First Nation have a longstanding history with this area and have

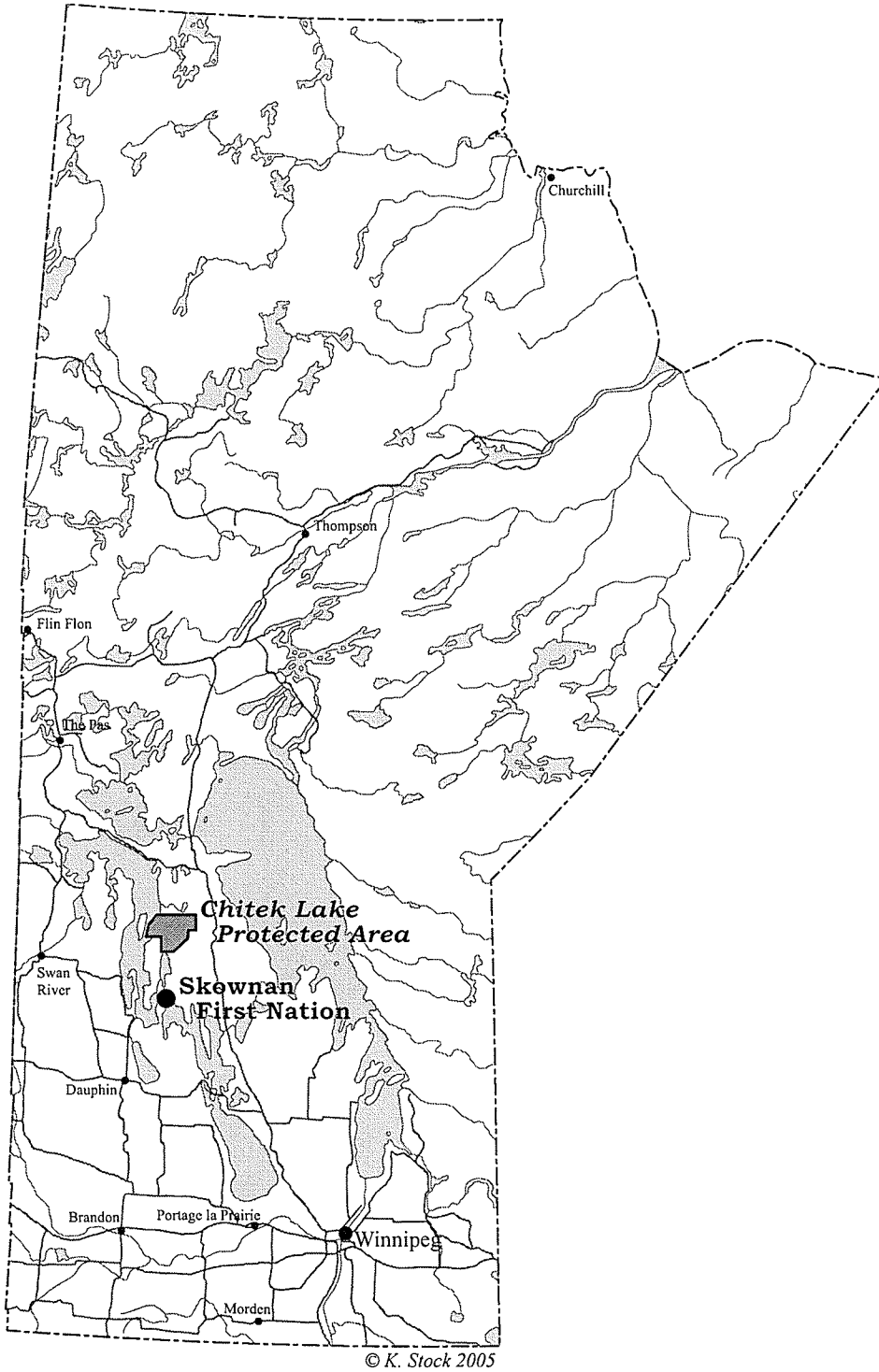


Figure 1: Location of the Skownan First Nation and the Chitek Lake Protected Area, Manitoba

taken a leadership role in alternative land developments since the 1950s with the establishment of the Skownan Fur Block and the re-introduction of beaver populations (Stock 1996, p. 17-18). Skownan First Nation exercises use and occupancy of this land. However the provincial government has control over its disposition and the allocation of natural resources on unoccupied Crown land.

In 1989, Repap¹ proposed large-scale forestry and road developments in Skownan's traditional land-use territory. Such developments threaten Aboriginal use and occupancy of traditional land-use territories. For the first time, irreversible land altering developments were proposed for the Skownan Resource Area. Consequently, Skownan First Nation was challenged to take action to stall this process in order to continue with its own land-use and land development planning. The First Nation proposed an area management approach based on co-management concepts shortly after the release of the logging proposal. The co-management proposal was rejected. Despite the rejection, Skownan First Nation decided to continue with its pursuit for land and resource developments that the community perceived to be culturally appropriate. Through academic research inventories were established that assisted the alteration in the proposed land and resource development plans. It changed from large-scale resource extraction to land protection and wildlife conservation programming. The 'Skownan First Nation Model for Sustainable Development and Aboriginal Stewardship' was created. Skownan First Nation employed each completed research projects in its negotiations with the Manitoba government. In this way, this dissertation is also set in the framework of advocacy research.

Contemporary land-use models based on central government decision-making processes and powers are challenged across Canada by Aboriginal communities (Reimer

On May 4, 1989, Repap (a division of Skeena Cellulose Inc., owned by Repap Enterprises, a Canadian-owned, Montreal-based pulp and paper company) purchased Manfor Ltd. (Manitoba Forestry Resources Ltd.) from the Government of Manitoba. Repap was granted a Forest Management License (FML) by the Province of Manitoba, as part of the acquisition (Stock 1996, p. 28-46).

1993; Kulchyski 1994; Notzke 1994; Scott 2001). In development situations, local Aboriginal values and needs are often different from those of the development planners. During the 1970s and 80s, Aboriginal communities across Canada started to request involvement in the planning and implementation of natural resource extraction developments. Ever since Aboriginal communities are asking for programs that entail “culturally-appropriate development” (Reimer 1993, p. 69). This line of research began in the developing world when the conflict between economic development and cultural values first became apparent in the early 1970s (Cohen and Uphoff 1980; Hall 1981; Hoben 1982; Bennett 1988).

Aboriginal communities propose alternative land-use models that are based on their visions, spirituality, cultural and socio-economic values to benefit their marginalized communities. Aboriginal communities struggle with the understanding of legal and governmental land entitlement and allocation. They are caught in the juxtaposition between their own views, values, and systems and the workings of the modern capitalist economies that drive land allocations for large-scale resource exploitation. As a result of Aboriginal resistance, co-management or joint-management processes were developed across Canada in the late 1980s and the early 1990s (Nepinak and Payne 1988, 1992; Berkes 1991; Berkes and Preston 1991; Notzke 1994; Gosse 1995; Roberts 1996; Jentoft 1998; Hannibal-Paci 2000; Kendrick 2003). The initiation of this development comes from the Aboriginal side in most instances. Skownan First Nation took the leading role in the discussions for alternative land and resource developments (Nepinak and Payne 1988, 1992). Dialogue between Aboriginal communities, government and industries vary from no communication to some communication to full negotiations and involvement. However the latter tends to be the exception.

The situation of Skownan First Nation is not unique in Canada. This First Nation is one of many Aboriginal communities struggling with access rights to natural resources and the continuation of traditional and commercial land-use activities in its home

territory. The research presented here is in accord with similar developments across Canada (Reimer 1993; Kulchyski 1994; Notzke 1994; Scott 2001). The issues are distinct and specific to the local geographic setting. This dissertation was conducted in support development that is culturally appropriate to Skownan First Nation. The researcher, together with the community of Skownan First Nation, embarked on a community-based research strategy to deal with externally imposed development issues arising in the Skownan Resource Area. The area contains the Chitek Lake area. It is the focus point of Skownan within the resource area. Chitek Lake is geographically located in the center of the present day Skownan Resource Area (Stock 1996, p. 16).

1.2 The Skownan Model

The purpose of this research was to develop a model based on sustainable development and Aboriginal stewardship in order to enable alternative resources and land management strategies for the larger Chitek Lake Area. The foundation of the model is based in the view of Skownan First Nation that as long as the land exists in its natural state it will carry wildlife populations and provide for Native people. Native people have the responsibility to protect and care for the land. This defines the stewardship role of Skownan First Nation. The Skownan Model at its core involves using protected area status as a legal vehicle to ensure sustainable use of traditional lands.

The research suggests that Aboriginal stewardship can be maintained while local / regional resources are enhanced. Alternative economic development can take place without jeopardizing the natural environment. Instead it will lead to economic development that serves the building of healthier Aboriginal communities while benefiting the larger society. At the same time it provides landscape and species protection. These fundamental principles of the model are based on the visions and teachings of the elders and leadership of Skownan First Nation.

The fundamental theory sustainable development and Aboriginal worldview is a constant. More research components may be added over time. The research components provide inventories of the local geography and history for the local Aboriginal community. Each component adds to the understandings of the complex socio-economic and cultural settings. With each inventory completed both Aboriginal communities and governments are able to enhance their understanding of the regional natural resource development and management issues. They are essential for regional land-use planning with Aboriginal communities. The specific variables vary with geographic locality. The model is transferable to other Aboriginal communities in Manitoba, Canada and elsewhere in the world.

Research components for regional land-use planning with Aboriginal communities include:

- archaeological surveys and excavation
- archival research to establish local historical developments
- traditional land-use studies
- traditional ecological knowledge studies
- Aboriginal cultural values and visions
- documentation of Aboriginal resource development initiatives and projects
- understanding Aboriginal land management systems
- ethno-botanical surveys
- wildlife studies and population modeling
- evaluation of industrial development proposals
- evaluation of legal, administrative, institutional and governmental frameworks, programs and processes
- investigation into alternative management solutions
- examination of appropriate research methodologies

Some of these research inventories have been started through this research process and the previous land-use studies. Each component presented here may be researched in far more detail in the future. Others like ethno-botanical surveys, traditional ecological knowledge, further archaeological studies as well as detailed archival research of the fur trade still have to be undertaken. More research needs to be conducted in relation to the wood bison release project and other wildlife populations. The Skownan Model is set in the traditional and contemporary Aboriginal understandings of Skownan First Nation. The First Nation has its own governing body with its legal, administrative and institutional structures that are specific to First Nation communities in Canada. The model is also positioned in the specific legal, administrative, and institutional frameworks and processes of the governments and institutions of Manitoba and Canada. However, the basic principle of the model can be transferred to regional land-use and natural resource planning with Aboriginal communities worldwide. It can be superimposed onto other legal, administrative, intuitional and governmental system. The most important aspect is to establish the different research components to have provide data for sustainable regional land-use development and management. Well-established research data offers a concrete foundation for negotiations with government and may lead to changes in regional land-use planning that are more beneficial to Aboriginal communities. This was proven with this research process.

The specific research components for this study were the evaluation of Manitoba's protected areas initiative, the archaeological survey, the creation of the Chitek Lake Interim Protected Area, the wood bison model and the two visioning projects. The goal of this dissertation was to understand the position, views, values, visions and ideas of Skownan First Nation in regards to land and natural resource issues in the larger Chitek Lake area. With these understandings, the aim was to define a model of sustainable development and Aboriginal stewardship through wildlife management and land protection procedures. A Community-based research approach was part of the

research process. The individual research components that support the overall model are as follows:

1. To determine if and how Aboriginal worldview is in accord with sustainable development theory and how it may apply to Skownan First Nation;
2. To evaluate the history of First Nation participation in protected areas establishment processes; assess the endangered spaces campaign and Manitoba's Protected Areas Program;
3. To evaluate the community-based research approach in order to apply appropriate methodology for research with the community;
3. To document Skownan First Nation's longstanding interest and occupancy in the larger Chitek Lake Area;
4. To document the processes and events that led to the establishment of the Chitek Lake Interim Protected Area;
5. To develop the Chitek Lake Wood Bison Herd Model to predict herd development and range expansion.
6. To analyze Skownan First Nation values and visions regarding the Chitek Lake Protected Area including the spiritual understanding

The first research component is achieved through literature review and conceptual work. The theoretical concepts of sustainable development and Aboriginal worldview serve as a framework for understanding Skownan First Nation's position and responsibility regarding the Skownan Resource Area and in particular the Chitek Lake Interim Protected Area. It is dealt with in chapter two. The second objective is achieved through a literature review and participation in negotiations for the protected areas program (chapter three). The third component to evaluate the community-based research approach

and discuss specific methodologies that work well with Aboriginal communities is established in chapter four.

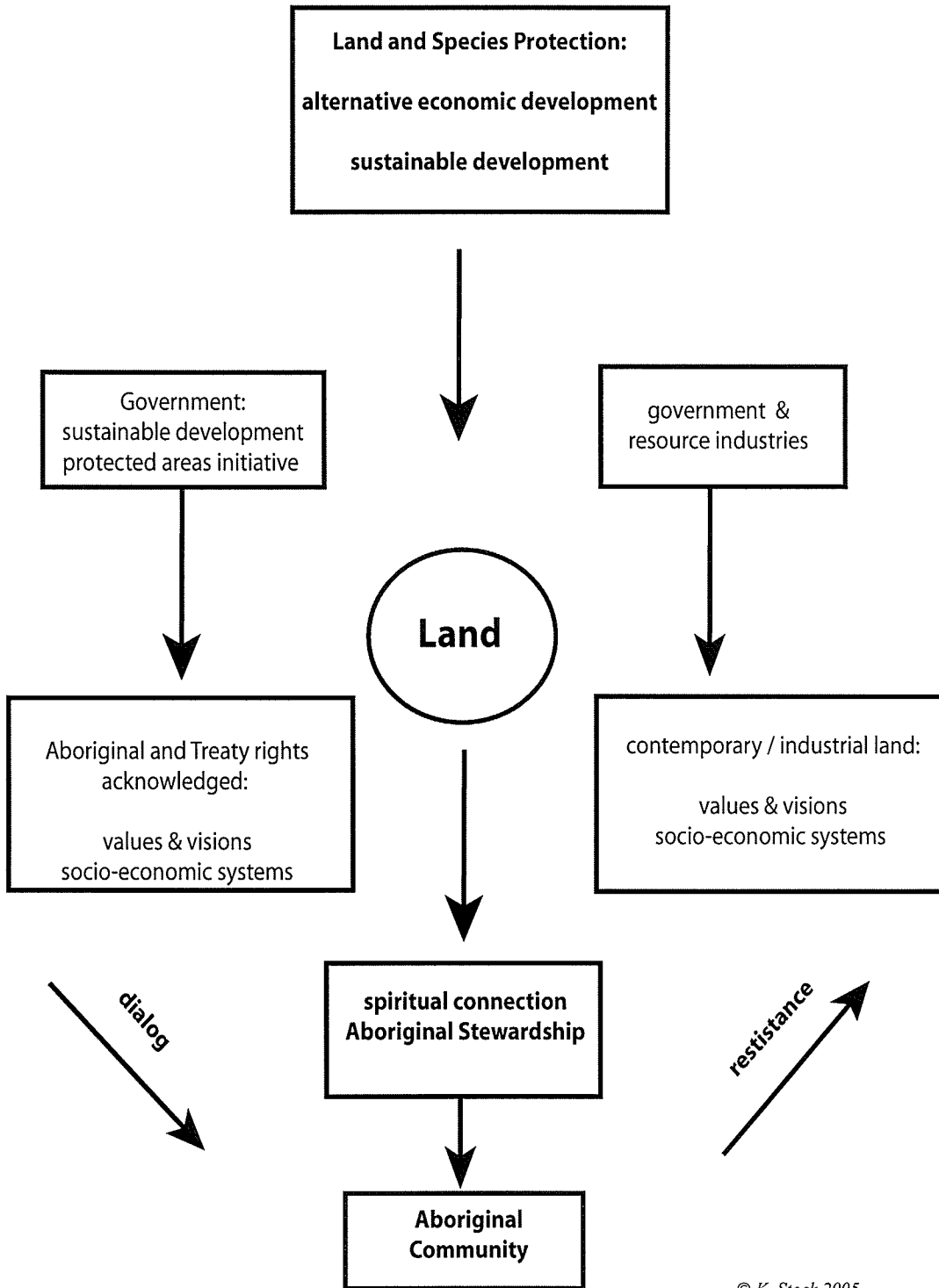
The longstanding occupancy of the larger Chitek Lake Area by Skownan First Nation was researched with an archaeological survey, historical literature review, some archival research and personal interviews and observations in the field (component four). It is dealt with in chapter five and the first part of chapter six. The processes leading to the establishment of the Chitek Lake Interim Protected Area (objective five) are explained in the second part of chapter six. The researcher was actively involved in the facilitation and negotiations. The community-based research methodology was applied for most of this research. The results of the sixth research objective to develop the 'Chitek Lake Wood Bison Herd Status Model' are documented in chapter seven. To achieve this objective methods include computer modeling, personal interviews and observation.

The seventh research component was achieved through two separate community projects (Appreciative Inquiry Project and Vision Seekers Process) involving intensive interview processes. The researcher played the role of facilitator and observer. Community project staff and other community members conducted most of the work. This research objective was achieved through the participatory action research methodology and forms the first part of chapter eight. The second part of chapter eight evaluates the basic concepts of Aboriginal spirituality and how it relates to Skownan First Nation. Chapter nine provides reflections on the Skownan Model and discusses future co-management applications. Chapter 10 provides the final conclusions and recommendations. This dissertation embodies several projects that were independently conducted. Linking the projects establishes a more complex picture of Skownan First Nation's land and natural resource issues and enables a better understanding of the complex natural resource issues of the larger Chitek Lake Area.

With this research it is suggested that community-based planning and

development can lead to more effective long-term, sustainable stewardship models than contemporary industrial resource extraction models. These alternative models may be more beneficial to small communities and in particular to Aboriginal communities, where most industrial models tend to aggravate further dysfunctions, poverty and marginalization situations that are typical of Aboriginal communities in Canada (Brundtland 1987; AJI 1991b; Notzke 1994; RCAP 1996a, b,c,d; Scott 2001a).

Development in this context is a multidimensional process especially where Aboriginal values and socio-economic systems are included. Aboriginal economic systems with their own dynamics, visions and cultural values are valid economies. They have their own cycles, successes, failures, struggles and challenges. They are not well understood in contemporary western terms and are often dismissed as non-existent or marginal. This research aims to expand our understanding in this field. It helps to define ways to achieve sustainable development in the Skownan Resource Area and presents a model for Aboriginal community-based land-use planning. Only in the last twenty years efforts have been made to gain understanding to contemporary Aboriginal culture, values, visions, and economic systems (Freeman 1976; Wenzel 1991; Notzke 1994; Scott 2001). It has been a slowly but steadily growing field of research and has taken on new dimensions worldwide in relation to Aboriginal people and small communities (Brundtland 1987; Berkes 1989; Weeden 1989; Khan 1995; Olive 1998; Canada 2000, INAC 2004).



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Figure 2: The Skownan Model

1.3 The Skownan Research Process

It is important to gain an understanding of the history of an Aboriginal community since pre-contact times through archaeological surveys, archival research and land-use studies. It leads to a historical inventory in order to gain better understanding of the local history. These research projects are intensive and complex. They need time to be completed to their fullness. This research approach was first developed by Freeman (1976) and has been successfully applied for comprehensive land claims and Treaty land entitlements across Canada.

In Canada, it is essential for researchers, developers and government officials to gain legal understanding of Aboriginal and Treaty rights. In 1979, with the *Hamlet of Baker Lake*² case, the Supreme Court of Canada set out a number of criteria in order to prove Aboriginal occupation of traditional lands. In *Hamlet of Baker Lake* the test for Aboriginal title demanded occupation of the territory to the exclusion of other organized societies since time immemorial (p. 45). The test was further developed for Treaty areas in the *Ontario (A.G.) v. Bear Island Foundation*³ case where Aboriginal people might have been forced to migrate due to war, disease and economic pressure. The court decided that the evidence for occupancy has to show “for a sufficient length of time to become integral to the aboriginal society” (p. 575, in Elliot p. 150).

In the *Calder et al. v. Attorney-General of British Columbia*⁴ case it is stated that “Aboriginal rights arise by operation of law, and do not depend on a grant from the Crown” (p. 209). The Supreme Court of Canada legal case development continues with the *Guerin*⁵ case declaring, “Indian title was described as an independent legal right pre-dating the Royal Proclamation of 1763 (p. 378). In *R. v. Sparrow*⁶ the Supreme Court of

² Hamlet of Baker Lake et al. v. Minister of Indian Affairs and Northern Development et al. [1979] 3 C.N.L.R., 17

³ *Ontario (A.G.) v. Bear Island Foundation* [1991] 2 S.C.R. 570

⁴ *Calder et al. v. Attorney-General of British Columbia* [1973], 34 D.L.R. (4th) 145 (S.C.C.) 145

⁵ *Guerin et al. v. The Queen and National Indian Brotherhood* [1985] 1 C.N.L.R. 120

⁶ *R. v. Sparrow*, [1990] 1 S.C.R. 1075

Canada admitted that “the Crown title was burdened with aboriginal rights” (p. 1103). In 1982, the Constitution Act recognized and affirmed existing Aboriginal and Treaty rights. The legal realities of Aboriginal and Treaty rights have to be understood and incorporated in natural resource developments. In Canada, it is fundamentally important to recognize Aboriginal and Treaty rights when dealing with resource issues of northern lands that are also occupied by Aboriginal communities. To enable Aboriginal communities to develop in ways that are consistent with their values and visions, existing Aboriginal and Treaty rights must be given “a generous, liberal interpretation” (*R. v. Sparrow* 1990, p. 228, in Kulchyski 1994, p. 213). Aboriginal and treaty rights have to be regarded on a cultural and socio-economic base in a modern context. As part of the discussion of implementing sustainable development the need to protect traditional rights of Aboriginal peoples around the world was identified (Brundtland 1987, p. 116). The protection of Aboriginal rights go hand in hand with sustainable land developments proposed by Aboriginal communities. The report calls for “steps to conserve and enhance the resource base and increase resource productivity (Brundtland 1987, p. 116). Skownan First Nation worked to enhance the resource base and increase resource productivity through wildlife conservation projects suited to the local environment.

Canadian Aboriginal communities have special rights on the land based on their pre-contact histories. This fact was ignored with the logging and road development proposals presented by Repap in 1989 and by the Provincial government in allocating the land. Skownan First Nation engaged with academia to undertake a traditional land-use study (Stock 1996) in order to prove occupation of territory. However, it was only with the completion of the first archaeological survey and the proof of existing archaeological and cultural as well as sacred sites that the final decision by the province was made to establish the Chitek Lake Interim Protected Area. The research results of different studies have been successfully used by the community in order to move ahead with its wildlife and landscape conservation projects as well as economic development in order to

maintain access to the land and exercise Aboriginal and Treaty rights and traditional land-use activities. Research is a fundamental requirement for Aboriginal communities, in order to become successful in implementing sustainable development projects that are culturally appropriate (figure15).

Specific scientific methodologies and methods need to be assigned for the different research projects depending on the subject. For example, for the wood bison model basic population dynamics and computer modeling methods had to be applied. Further scientific research projects are needed in order to keep track of the herd development. GPS and GIS technology should be involved for the herd monitoring. In sustainable wildlife and landscape conservation projects with Aboriginal communities there is always a need for more research in order to deal with daily and long-term management and decision-making processes.

In working with Aboriginal communities a basic understanding of local values, and visions is needed in order to understand the dreams and ambitions of Aboriginal people. People of all communities have values, ideas and visions on how to improve their lives (Barett 1995; Cooperrider 1996). The values, visions and dreams of individuals form a collective group identity that will determine the future of communities. Participatory action research methodologies are effective ways of working with Aboriginal communities as demonstrated in Skownan First Nation with the 'Appreciative Inquiry Methodology' and the 'Vision Seekers Process.' They can be easily applied to other Aboriginal communities for the purpose of finding solutions to Aboriginal challenges and sustainable development projects.

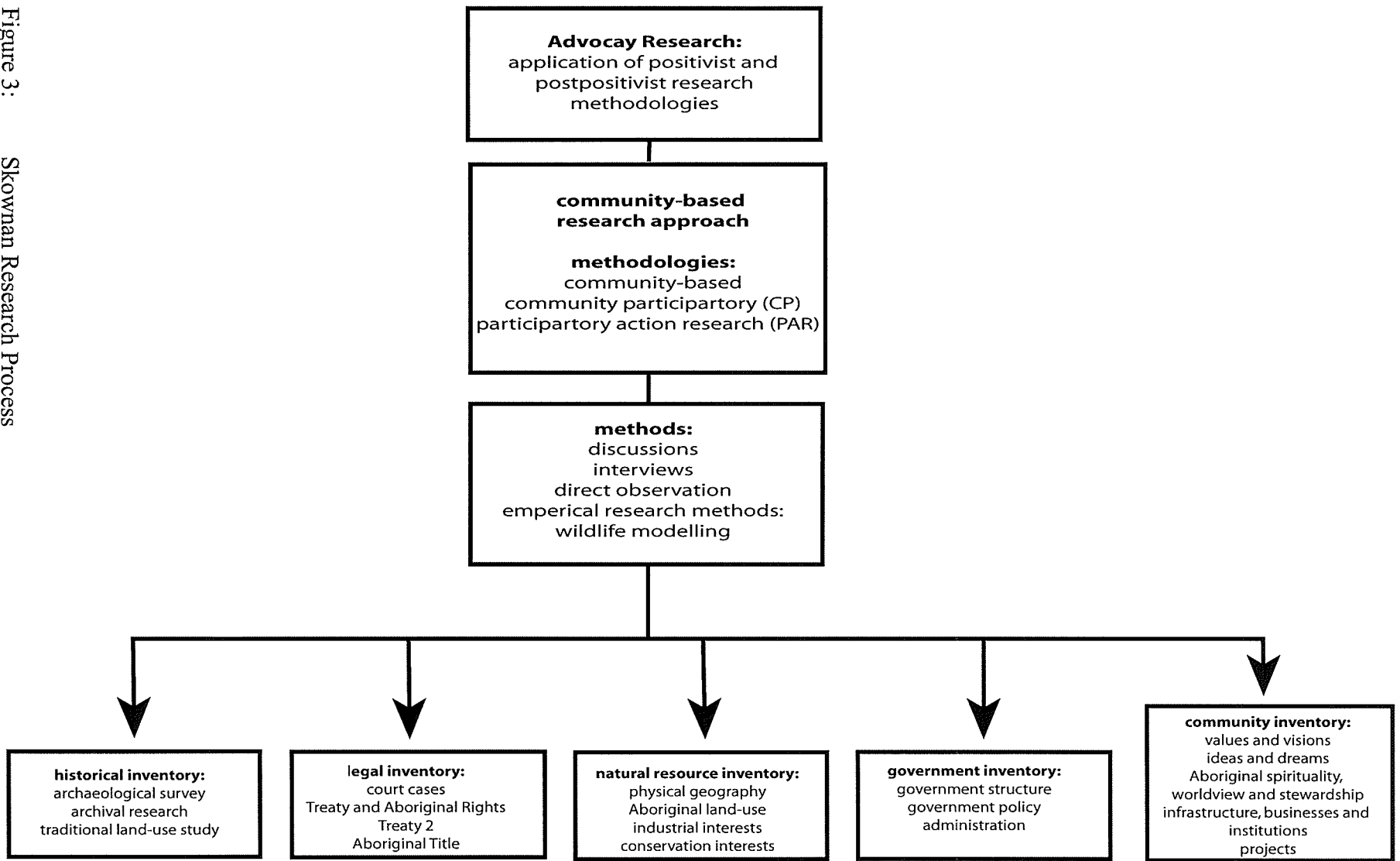
Researchers, developers and government officials, must acknowledge basic Aboriginal spiritual values although it is unnecessary to have a detailed understanding. Governments must accept that Aboriginal spiritualities and worldviews are different but valid. With this recognition it is easier to understand the wildlife and landscape conservation development ideas of Aboriginal communities. The values, visions and

development ideas of Skownan First Nation are compatible with the philosophy of sustainable development. On-going education is important for the development of Aboriginal communities. This is a fundamental value with Skownan First Nation and has resulted in the establishment of the 'Vision Seekers Adult Education Centre.' Human capacity development in Canadian Aboriginal communities has been lagging behind and is in great need of improvement.

Sustainable development with Aboriginal communities takes time. It is a complex process that requires the involvement and dedication of the local community, researchers, government officials and developers. It is work intensive and needs constant adjustments, flexibility and a learning environment to deal with the on-going challenges. Sustainable development with Aboriginal communities will not replace the capitalist-driven economic aspects of the world. However, it will enhance the diversity of development and at the same time help with landscape and species conservation - two much needed aspects in today's world. Many Aboriginal communities are facing the challenges of alternative natural resources development in order to find solutions that are sustainable in meeting the needs of the present and future generations. The efforts of Skownan First Nation are a substantial contribution to sustainable development.

The successful enhancement of the larger Chitek Lake area with wood bison, fishing, guiding and possible eco-tourism can generate good economic revenue if pursued properly. The existing activities like fishing, guiding, trapping and seneca root gathering are contributing significantly to the local economy. Only looking at the revenues based on commercial fishing large amounts of money have been made in the larger Chitek Lake area. Very often these revenues are not obvious in the larger economic picture since local communities or government departments do not produce public annual reports on these economic activities for each community. The individual reports on fishing are filed with the Freshwater Fish Institute and the Manitoba Conservation office in Gimli and are not easily made accessible.

Figure 3: Skowman Research Process



1.4 Advocacy Research and Role of the Researcher

Aboriginal communities across Canada want research projects that are meaningful and provide useful information helping with positive community development (Cruikshank 1993; Reimer 1993; Ward 1996; Simpson 1999; Wuttunee 2000). The chief of Skownan First Nation invited the researcher to participate in finding a way to protect the larger Chitek Lake Area from the proposed logging and forestry developments. Research that facilitates the cause of a specific group is considered advocacy research. Advocacy research is rooted in human and animal rights movements (United Nations 1997; Canada 1999; Garrett 2000; Smith 2000; Perkins 2003). Significant developments of advocacy research took place with the social movements of the sixties (Freeman and Johnson 1999). The research attempts to help disadvantaged and marginalized groups. It fosters change leading to empowerment that in turn creates development for the better of the group in question. From a social scientist perspective the researcher should “assume responsibility for devising ways in which the research might stimulate political and social change” (Hondagneu-Sotelo 1993, p. 59). In this study political change was achieved through the process of consultation, facilitation and negotiation for the establishment of the Chitek Lake Protected Area. The government was obliged to respond to concerns raised regarding the impact that logging and road development might have on the Chitek Lake Wood Bison Herd.

In Canada, there is a history of scientific effort “to work for the rights of Native peoples” (Wenzel 1991, p. 8). According to Wenzel (1991) advocacy research “has been to intercede on the side of indigenous groups against the efforts of national governments and industrial interests to ‘civilize’ aboriginal peoples by expropriating their lands and resources” (Wenzel 1991, p. 8). Part of this research effort was to help Skownan First Nation to maintain access rights to the traditional land-use territory in order to uphold Aboriginal and Treaty rights which in turn helps to maintain the cultural identity of the people. Many studies that involve Aboriginal populations support their ambitions “to

retain control over their cultures” (Wenzel 1991, p. 9). More specifically, in the Canadian Departments of Native Studies, advocacy research often supports land claims and studies supporting Aboriginal communities (Tough and Ray 1990; Dyck and Waldram 1993). There may be concerns that advocacy research relinquishes objectivity on the part of the researcher and may lead into a paternalistic ‘speaking for others’ mentality. However, if the researcher is mindful of these drawbacks, it then offers a useful and ethical research framework.

This researcher took on multiple roles at various times of the research process: I was an active participant, negotiator and co-facilitator in the process that led to the establishment of the Chitek Lake Interim Protected Area. I was completely in charge of the research process, data analyses and modeling procedures of the Chitek Lake Wood Bison model. For the archaeological survey, I was the organizer of the project and co-researcher in the field.

For the two participatory action research projects the role was scientific advisor for the projects and facilitator between the community and the ‘new’ institutional project leaders. Chief and Council of Skownan as well as staff from the International Institute of Sustainable Development (IISD) asked for this role. A smooth transition phase and a fast learning curve were anticipated for all involved. Pre-meetings took place in Winnipeg with the IISD and Vision Seekers project leaders in order to provide background information on all natural resources issues and the workings of the community. The community asked the researcher to keep an eye on the ‘new’ outsiders, especially IISD in order to ensure that the project intentions as laid out would be maintained. The community did not want to find out at a later stage that they might have been taken advantage of in terms of government using local information against the band since the IISD project was largely funded by the provincial government. Problems with outside researchers, and consultants as well as research and government institutions, in terms of unintentional and intentional use of local information that might have negative

consequences to Aboriginal communities are well known to Native people. However, this is not a well-documented issue in the literature. This researcher was asked to be fully involved especially at the beginning of the IISD and Vision Seekers projects for this reason.

After a weeklong training process in interviewing techniques for the IISD project, the selected team members conducted the interviews. Together with the project leaders, the team members analyzed the data and compiled research findings. The original data set stayed in the community. I wrote an evaluation of both projects based on my involvement and the published reports. Both PAR projects presented the community with methodologies that allowed for a greater sense of control and ownership of the research process, the obtaining, handling, analyzing and keeping of the data.

Working with Aboriginal communities takes time in order to build trust between the researcher and the governing body, individual community members and the community at large. It is a two-way learning experience. The experience of conducting research with Aboriginal communities in Canada requires a longer-term commitment in order to achieve good and valid research results (Lapadat and Janzen 1994, p. 81; Ward 1996, p. 153). The relationship between the community and the researcher started already in 1989 while the researcher was still an undergraduate student. The researcher was invited by Chief and Council to conduct a land-use study that was needed to illustrate to government the use and occupancy of the area by Skownan First Nation. With this the researcher had already established a good 'working' relationship with Skownan First Nation for all other this research projects.

After the completion of the land-use study, Chief and council of Skownan First Nation asked the external researcher to place specific local issues regarding the Chitek Lake Area in the larger debate of land protection issues in Manitoba and Canada. Chief and Council wanted to understand these issues in order to make an informed decision if

the band should engage in the avenue that the new provincial land protection program seems to be offering.

Chief and council asked this researcher to represent Skownan First Nation on the 'Protected Areas Working Group' and the 'Chitek Lake Wood Bison Planning Group.' The sixty-four First Nation communities in Manitoba are organized into three assemblies. Each assembly selected one representative for the 'Protected Areas Working Group' in order to deal with Manitoba Conservation (Parks Branch) jointly on the specific First Nation issues relating to the establishment of new protected areas. Skownan First Nation had a special seat on the working group as the leading First Nation in this program. WWF Manitoba was present as an observer to the discussions. The 'Chitek Lake Wood Bison Planning Group' was set up in order to deal in cooperation with Manitoba Conservation (Wildlife Branch) on the wood bison management issues.

I became an advocate for Skownan First Nation, always maintaining academic integrity and standards to the best of my knowledge. A large component of this research process was to be involved in the political process of presenting to and negotiating with the provincial government on behalf of Skownan First Nation. I reported back to chief and council on a regular base and took guidance from the meetings. Consultation with the elders took place for major community decisions like the decision to participate in the protected areas program or not. After that chief and council presented the issues at the community meetings. Band members had the opportunity to ask questions, voice concerns and to decide which direction the community should take. From the consultation with the elders and the community at large, chief and council gave the researcher advice on how to proceed with the next steps in the research process.

The negotiations and facilitation for the community had overflow effects for the community. The outcomes of the negotiations then determined in part the on-going research process in terms what questions were asked and what information needed to be prepared for the next meeting. The main goal from the beginning was to improve the

situation for Skownan First Nation in relation to the Chitek Lake area. Everything was done in order to assist the community to continue implementing its visions and dreams for the development of a sustainable future. The main contribution of this research is the formulation of the Skownan Model that can be applied to other First Nation communities in Manitoba and Canada as well as elsewhere in the world where Aboriginal communities exist. Other valuable contributions are the formulation of the community-based research methodology; the establishment of the Chitek Lake Interim Protected Area; the identification of spiritual and cultural sites at Chitek Lake through the archaeological survey; the historical facts about the establishment of the Skownan First Nation through archival research; the development of the Wood Bison Status Model; and the evaluation and analysis of the two PAR projects. The researcher worked with academic freedom and integrity under general guidance from Skownan First Nation.

A major limitation in this research is the cross-cultural setting between external non-native researcher and an Aboriginal community. Due the long-term involvement there was an in-depth learning curve for the external researcher. However, an external researcher will never be able to fully immerse in, adapt to and understand the spiritual and cultural fabric of an Aboriginal community. Times spent in the community and on the land were limited to one day or several day visits during the different seasons of the year. The researcher went to many wood bison and natural resource meetings on a regular base from 1989 until November 1999. They took place approximately once a month in the community. After the November election with a new chief in place the regular invitations to the meetings faded out more and more until they ceased to exist. Many meetings took place in Winnipeg with the chief while he was in the city for wood bison, natural resources meetings as well as other issues in regards to the community. They amounted to approximately three or four meetings per month. Meetings of approximately once or twice a month continued with the former chief on wood bison and natural resources issues until the spring of 2004.

The longest time spent on the land in the Chitek Lake area was during the archaeological survey: two weeks in August 1998. Five other day excursions to Chitek Lake took place during the winter month. Several winter day trips were conducted in areas closer to the community. During the years the researcher participated in the meetings in the community, visits to the wood bison ranch were conducted on a regular base.

However, most of the 'land skills' were acquired under the guidance of Gordon Moosetail from Pine Creek First Nation while the researcher conducted the data collection for the Pine Creek land-use study from 1995 to 1998. The main focus was on winter land-use activity skills. One to three times each winter special winter activity trips were set up for the duration of two days up to one week each time.

Part of the cross-cultural limitation between the researcher and the community was the language barrier. Much was said in Ojibwa in meetings and informal gatherings. Based on the experience with the traditional land-use study where two local band members were hired for interviews, the researcher advised IISD project leaders to set up the project as a participatory action research project and train local young adults in conducting the interviews due to the language barriers especially with elders. Originally IISD project leaders wanted to conduct the interviews themselves. This approach does not work well with Skownan First Nation mostly because of language barriers.

1.5 Geographic Situation

The Skownan reserve is situated on the south shore of Lake Waterhen between the West Waterhen River and the Waterhen River. The reserve land base amounts to 1856.7 hectares. Just over half of the reserve is used for residential and agricultural purposes. The remainder consists of forests and wetlands (Indian and Northern Affairs Canada 1988). The reserve land-base is currently under review and additional acreage is being

negotiated (First Nations Profiles 2004).

The neighboring communities of Rockridge, Waterhen and Mallard are comprised of people who are primarily classed as Bill C 31 Indians⁷, non-status Indians, Métis and a population consisting of mixed European ancestry⁸. Rockridge is located immediately south of the reserve. The community of Waterhen lies 20 kilometers south of the reserve line, and east of the Waterhen River on provincial highway 328. Mallard is located 20 kilometers north of Waterhen on the east side of the Waterhen River. Dauphin, Winnipegosis and Ste. Rose du Lac are service and supply centers for Skownan First Nation. Goods and services not available in these communities are generally obtained from Winnipeg. Dauphin and Winnipegosis are located 126 and 80 kilometers respectively to the southwest, Ste. Rose du Lac 100 kilometers south of Waterhen. The roads from Skownan First Nation to Dauphin, Winnipegosis and Ste. Rose du Lac are paved provincial highways. The roads east from Waterhen to Gypsumville and from Waterhen to Mallard are all-weather provincial gravel roads.

1.6 Physical and Human Geography of the Waterhen / Chitek Lake Area

The Waterhen / Chitek Lake Area is part of the Interlake Plain (Elson 1962; Klassen 1967; Fraser *et al.* 1985) and has unique geographic features in the southern part of the boreal forest of the Manitoba Lowlands Natural Region. It is rich in wildlife and natural forest stands, making the area economically attractive to Aboriginal peoples and forest industries.

The surface landscape of the Waterhen area was largely formed during the last ice

1 In 1985, an amendment was made to the Indian Act to allow entitlement to registration of people to a band who had formerly lost 'Indian status' under certain sections of the Indian Act (Woodward 1989, p. 19-30). This has considerably increased the number of band members living off-reserve in neighboring communities.

8 Predominately French, Scottish, Ukrainian and Icelandic.

age. The entire area was glaciated during the Pleistocene age and covered by Lake Agassiz for some 1500 to 2000 years. The present-day land surface appeared 8000 to 7500 years ago (Elson 1962; Klassen 1967; Teller and Clayton (1983); Fraser *et al.* 1985).

The area is generally flat with ridges. Elevations in the Interlake Plain range from 244 meters to approximately 282 meters above sea-level: Lake Winnipeg is 217 meters above sea-level (Fraser *et al.* 1985, p. 10). The ridges in the western part of the Waterhen area are larger, higher and broader and become lower and smaller towards the east and southeast. These ridges form important wildlife corridors and are also covered with high quality timber stands. The drier and higher ground provides a good surface for road construction purposes required and proposed by the forest industries. The area north of Chitek Lake to the The Pas Moraine (approximately 300 meters at the crest above sea-level) is part of the northern portion of the Interlake plain.

The climate is continental with short, cool summers and long cold winters (Dfb/c Köppen / Geiger climate classification). The southern portion of the Waterhen area lies in the "High Boreal-temperate Ecoregion" and the northern portion including the Chitek Lake area in the "Low Boreal Ecoregion" (Fraser *et al.* 1985, p. 16). The 'Low Boreal Ecoregion' is 1.3° to 1.5° C cooler than the southern part and has a shorter growing season.

The Interlake Plain is part of the Nelson River principal drainage division (Fraser *et al.* 1985, p. 10). The local drainage is poorly developed and water is trapped within the swales in lakes, marshes, fens, muskegs and treed muskegs between ridges.⁹ The area has extensive wetland ecosystems that could easily be altered and damaged by industrial developments. Lot more research on the aquatic environment is needed. Springs with clear fresh drinking water are rare but important sites for the Aboriginal peoples. The

⁹ More information on watershed and drainage can be obtained from Fedoruk (1970).

water quality in the lakes and creeks is poor for human consumption. Chitek Lake water is salty and scummy when boiled. However the lake produces excellent quality pickerel (*Stizostedion vitreum*) – a phenomenon not well understood from a fish management perspective (Campbell 2002, *pers. com.*). Commercial fishing is the most important economic activity in the Skownan Resource Area for Skownan First Nation. Open mineral licks are important for the extant wildlife populations.

The ridges, lakes, marshes and muskegs are generally oriented in a north-south direction due to the topography that is the result of glacial action. Wetlands vary from open horizontal fens in the south to treed fens and bog-and-swamp landforms associated with black spruce and tamarack on peat lands and poorly drained mineral soils towards the north (Fraser *et al.* 1985, p. 10 and 16-18). These soil profiles are shallow due to the geological youthfulness of the area (bedrock or glacial deposits occur within 40 to 160 cm) (Fraser *et al.* 1985, p. 19-29). Generally speaking, the poor quality of the soils, the shallow depth of the soils and the boreal climate are the major limiting factors for commercial forest plantations. The area contains luvisols and brunisols associated with gleysols and organic soils. Luvisols are well to imperfectly drained soils under forest cover; brunisols are well to imperfectly drained mineral soils under mixed forest cover; gleysols are poorly drained soils conditioned by fluctuating water tables which may have organic horizons; and organic soils have large organic deposits that are saturated for most of the year and contain seventeen percent or more organic carbon (Fraser *et al.* 1985, p. 25-29).

Only class three to class seven soils are found in the Waterhen area. The best lands for commercial tree production are found in class one and two which are both non-existent in the Waterhen area. Class three lands comprise less than five percent in the Waterhen area. Classes four to seven have moderately to severe limitations to the growth of commercial forests (Canada Land Inventory – Forestry 1971 and 1974; Fraser *et al.* 1985, p. 93-99). The first cut of the forests in the Chitek Lake area will produce high

economic value. However, the forest regeneration is problematic and further hindered by the use of heavy machinery that results in soil compression.

The northern part of the Skownan Resource Area is largely coniferous forest cover. Further south it changes to mixed deciduous-coniferous to deciduous forest stands interchanged with open fen areas (Fraser *et al.* 1985, p. 16-18). The use of the forest includes fire wood gathering since human occupancy began and small scale logging for log house or cabin construction beginning with the fur trade. During the 1950s and 1960s, several small sawmills were operated throughout the Waterhen area. The area has no significant history of large-scale wild fires. Until World War Two traditional land-users practiced controlled burning along the ridges to maintain travel routes. Wildlife used these trails for travel as well. The ridges and adjacent areas with vegetation in early successional stages were preferred hunting areas (Marion 1998, *pers. com.*).

Trembling aspen (*Populus tremuloides*) is the dominant species in the southwest Skownan Resource Area. The vegetation more characteristic of the boreal forest to the north and northeast consisting of pure stands of black spruce (*Picea mariana*) and mixed stands of black spruce and tamarack (*Larix laricina*) (Fraser *et al.* 1985, p. 16-18). To the west of Chitek Lake, mixed-woods on well drained sand and gravel soils consisting mainly of trembling aspen and jack pine (*Pinus Bankssiana*). The sedge (*Carex spp.*) ground vegetation between the jack pine ridges provides important late winter forage for the Chitek Lake wood bison (*Bison bison athabasca*). The treeless sedge and meadow-grass fens dominated by sedges (*Carex spp.*) to the southwest, west, northwest and south of Chitek Lake are important feeding grounds for the Chitek Lake wood bison. These forests also provide important habitat for moose (*Alces alces*), elk (*Cervus elaphus manitobensis*), white-tailed deer (*Odocoileus virginianus*), woodland caribou (*Rangifer tarandus caribou*) and wood bison. The Skownan Resource Area is the only area in Manitoba that has five large ungulates species in a 'natural setting.' The area has high wildlife concentrations despite Treaty and licensed hunting pressures. A small island on

Chitek Lake contains a small breeding colony of white pelicans (*Pelecanus erythrorhynchos*). Showy Lady's Slippers (*Cypripedium reginae*) - a rare wild flower in Canada - can be found in the Chitek Lake Area (Nepinak H. 1997, *pers. com.*).

The Skownan First Nation use of the Chitek Lake area is illustrated in the traditional land-use study. Maps for each traditional land-use activity for each season were created as well as maps for trails and camps (Stock 1996). Some non-Native hunting activities take place in the Skownan Resource Area. A few Skownan people as well as a number of people from surrounding communities are employed in the outfitting and guiding activities. Occasionally government staff uses a cabin that was built on the westshore of Chitek Lake in the 1980s by Manitoba Conservation. A large Hydro camp exists a few kilometers west of highway number six on the Eleventh Base Line. It is in operation all year. A major hydro-transmission line and corridor intersects the eastern Skownan Resource Area. None-Native licensed hunters enter the hydro-line corridor via the base lines and set up hunting camps along the hydro-corridor at hunting times. Base lines are east-west clearings that were cut in the 1950s and 60s for fire management purposes.

In conclusion, the Chitek Lake area is a unique landscape in its physical and human geography components. The next chapter provides the theoretical background of sustainable development and Aboriginal worldview to understand Skowan's position and the development of the Skownan Model.

Chapter II

2.1 Introduction to Sustainable Development

This research is in accord with the 'global agenda for change' presented by the World Commission on Environment and Development (Brundtland 1987). The report proposes "long-term environmental strategies for achieving sustainable development" (Brundtland 1987, ix). According to Brundtland (1987)

humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs (p. 8).

The report calls for development that moves away from creating unsatisfactory conditions of life and leads toward a life regarded as spiritually, mentally, emotionally and materially healthy. The people of Skownan First Nation have expressed the same view to be engaged in development that is holistic and addresses all needs of the community. An approach based on sustainable principles that includes Aboriginal spiritual, cultural and socio-economic values is the underlying principle of the Skownan Model. The preservation of the land as it exists for wildlife reintroduction and expansion programs with the goal of economic development presents the fundamental theory of the Skownan Model. Skownan First Nation has made a strong commitment to sustainable development that incorporates traditional values. The community has demonstrated in the past that a sustainable approach is functional. Examples include: establishment of the Skowman Fur Block, re-introduction of beaver, a moose management agreement, Chitek Lake Fisheries and the Chitek Lake Wood Bison Project (Stock 1996). Since 1989, Skownan First Nation has worked diligently to enable further sustainable development of the Skownan Resource Area in a culturally appropriate manner.

The concept of sustainable development is significant to this research because it recognizes a connection with the earth that resonates with Aboriginal worldview. Both theoretical concepts are integrated in the position that Skownan First Nation has taken

with regard to natural resource development in its traditional land-use area. The similarities and differences between sustainable development and Aboriginal worldview and their application to this research are examined.

2.2 Sustainable Development in Relation to Skownan First Nation

Before the term ‘sustainable development’ became widely known, the need to understand or recognize the relationship between the economy and a healthy environment was readily dismissed. Limits to natural resources were unknown or ignored (Brundtland 1987; Hawken 1993). The idea of balance in using resources to meet present and future needs – a distant notion to most of the business world – has become an important issue among world leaders, academics, business people and decision makers. In the capitalist driven economy, industries and governments return only a small fraction of the economic value to regions that are still occupied by Aboriginal people in relation of what was extracted from them. The people of Skownan First Nation were well aware of this reality. They did not want to be caught in the increased poverty situation once short-term resource extraction developments cease to exist and environmental changes and degradation would make commercial and subsistence economic activities on the land much more challenging perhaps obsolete. The resource extraction plans for the Skownan Resource Area were part of the capitalist-oriented global economy that demanded a level of access to and a level of fragmentation of the land by industry that was considered to be too destructive for Aboriginal natural resource developments.

Many authorities have come to the understanding that environmental limits to human and industrial activities are a reality (Brundtland 1987; Hawken 1993). As a result, the philosophy and theory of sustainable development evolved. The debate to define sustainable development leans towards development based on a series of ethical principles rather than formulation of a precise definition (Moffat 1996, p. 27; Wuttunee

2000, p. 74). Many questions and contradictions about the theory of sustainability continue to be central in the on-going debate. Sustainable development is a holistic approach searching for development alternatives and acknowledging that business does not exist in a vacuum (Moffat 1996; Hawken 1993). Its influence extends beyond its direct economic and environmental impact around the globe. Researchers from a variety of disciplines, in search of theory and general law, are arriving at similar conclusions concerning population growth, use of natural resources and economic development (Robinson *et al.* 1990; Lélé 1991; Lélé 1991; Khan 1995; Clayton and Radcliff 1996; Warren 1997; Berkes 1998; Mulder and Biesiot 1998; Olive 1998).

Aboriginal peoples are not alone in their quest to find better ways for the earth and human life to co-exist. Many people around the world have joined in efforts to protect the environment while advancing sustainable economic development at the same time. Three important criteria of sustainable development are “economic feasibility, ecological supportability and social acceptability” (Weeden 1989, p. 43). Any development has an economic side to it. In terms of resource development significant economic returns are expected. For development to be sustainable, economic development has to be integrated in ecological and social components. Skownan First Nation takes this approach to economic development with its wildlife development initiatives. The most successful sustainable development initiatives in the Skownan Resource Area are the beaver restoration program, the Chitek and Inland Lakes Fisheries, the Chitek Lake Wood Bison Herd and the Chitek Lake Interim Protected Area.

For example, Skownan First Nation has developed the local fish resources based on the local ecological conditions that support this development. Fishing is a major economic component of Skownan First Nation. The expansion development fits into the social fabric of the community. Based on using the ecological conditions without contaminating, destroying or significantly alternating the local environment, the environment provides a resource with significant economic return to the Aboriginal

community. All three criteria are met and the development is sustainable. The land provides in its unaltered state a resource of substantial economic return.

In Agenda 21 – a ‘Programme of Action for Sustainable Development’ – delegates from 178 countries (including Canada) re-affirmed their commitment to sustainable development. Agenda 21 lacks the status of international law but carries a strong moral obligation to ensure its full implementation (United Nations 1992). Agenda 21 has become the basic theoretical foundation of sustainable development worldwide. Many sustainable development initiatives and projects have been formed on all levels from small communities to government institutions and large international cooperations. Sustainable development is slowly but steadily growing and advancing into all sectors of society. A large body of literature has developed on sustainable development since that time and continues to expand with each year (<http://www.iisd.org>; www.sustainable-development.gov.uk/publications).

Forests are important and large-scale ecosystems that are threatened by larger and larger logging activities. There is a great need worldwide to develop more sustainable logging activities as well as alternative economic forest uses that are sustainable (http://www.umanitoba.ca/institutes/natural_resources; <http://www.fao.org>). Agenda 21 includes the ‘Statement of Forest Principles.’ The following paragraph from the preamble is perhaps its most important declaration in the context of this dissertation.

Forest issues and opportunities should be examined in a holistic and balanced manner within the overall context of environment and development, taking into consideration the multiple functions and uses of forests, including traditional uses, and the likely economic and social stress when these uses are constrained or restricted, as well as the potential for development that sustainable forest management can offer (United Nations 1992, p. 291).

A large body of sustainable development literature in relation to forests has developed. Simple measures of economic development, such as profitability and job creation offered

by logging opportunities fail to constitute sustainable development achievement due to the social stresses associated with the loss of other activities and opportunities on the land. A broader, more holistic approach is required and is presented in this dissertation. Many researchers have come to the conclusion that a fundamental change in natural resource and economic development has to take place in order to guarantee and sustain quality of life for present and future generations. This holistic philosophy is central in Aboriginal worldview.

2.3 Aboriginal Worldview

Aboriginal peoples have a longstanding deep connection to the land, the natural environment and natural resources. Today Aboriginal peoples worldwide frequently refer to our blue planet as 'Mother Earth.' According to Wuttunee (2000), "honoring the relationship to Mother Earth is a lifetime commitment for many Indigenous people" (p. 17). While there are many variations in detail between different Aboriginal cultures, arguably there are common principles that unite them forming an Aboriginal worldview. Its values and visions are dynamic (RCAP 1996a; Battiste and Youngblood Henderson 2000; Wuttunee 2000; Dudgeon 2003). As far as Aboriginal peoples are concerned, they have the common responsibility to protect Mother Earth for future generations to "honor, maintain and protect the cycle of creation" (Wuttunee 2000, p. 17). It is the gift of life and the responsibility it entails that is fundamental to Aboriginal peoples around the world (Mercredi and Turpel 1993, p. 155-156; RCAP 1996a, p. 63; RCAP 1996c, p. 449; Wuttunee 2000; p. 20). Aboriginal worldview and philosophy has developed from the strong connection to the land. Wuttunee (2000) explains that "the relationship with the land is complex and not easily understood nor experienced for people not born into that tradition" (p. 73). It is spiritual in its core. Everything in the physical world is related to the spiritual world. In the Aboriginal view, the spiritual realm sustains the physical

realm. Spirituality is at the center of Aboriginal worldview (Wenzel 1991; RCAP 1996a; Berkes 1998; Battiste and Youngblood Henderson 2000; Whitley 2000; Wuttunee 2000; Dudgeon 2003).

Taking care of 'Mother Earth' is integral to all activities in relation to natural resource and economic development projects affecting traditional lands. In Aboriginal cultures there is rarely a distinction between matters of environment and natural resources. Such a division is arbitrary since everything is interconnected. Aboriginal peoples are demanding a holistic view of land, resources and population growth issues.

All of Skownan First Nation's interests in natural resource development have been with the vision of rebuilding successful economies for its members based on sustainable development that provides for future generations and population increase. In 1989, the proposed industrial large-scale developments by Repap (later Tolko) posed a major threat to Skownan's development efforts. If the provincial government would have approved the logging and road development plans, most of the Skownan Resource Area would have been assigned to the Repap (Tolko) Forest Management License area. The company would have received the primary user rights of the area. Skownan's economic development ideas would have been compromised. Some of the projects like the wood bison release initiative could not have been realized. The logging proposals challenged Skownan's worldview and role as stewards. The entire population saw its identity diminished and the role as protectors of this land lost. Many people felt hopeless for their own future as a community without economic development potentials derived from the land. The land as it exists with its plant and wildlife resources is core to the Aboriginal worldview of Skownan First Nation.

One role of elders is to ensure that a community is reminded of its responsibilities. Elders are regularly consulted in the decision-making process regarding land issues (Wuttunee 2000, p. 18). However, many elders feel that they fall short in their responsibility towards 'Mother Earth,' especially when contemporary land

development leads to damage and destruction. Often elders are deeply saddened and feel that they have failed the present and future generations (Petch 1998a, pers. com.).

The elders and leadership of Skownan First Nation recognize the increasing demands on natural resources by its own population growth. To enhance the renewable natural resources of the Skownan Resource Area, Skownan First Nation worked on increasing fish yields in numerous lakes through stocking efforts. The First Nation has also added a wild herd of wood bison that serves two purposes: species conservation and an additional source of food and income. The people of Skownan First Nation understand that at times significant modification to the lands of other First Nation communities have occurred through large-scale industrial developments. The First Nation is cautious about such developments. The large-scale forestry and road development proposals, although economically viable for the industry, did not meet the community's standards regarding its responsibility to take care of the land. They were not economically viable for the community. Careful planning and balance are required for successful natural resource developments that will help to build healthy communities. Many Aboriginal communities are not against development as such but demand development that sustains the environment and natural resources.

During the hearings of the 'Royal Commission on Aboriginal Peoples' (RCAP), Aboriginal people were addressing past and continuing connections to the land. They raised their concerns about damage done to the earth (RCAP 1996a, b, c, d). Land plays an important part in the future of Aboriginal communities as it has done in the past. The relationship to the land is both spiritual and material. It forms the basis for continuity of Aboriginal cultures and societies (RCAP 1996a,c; Battiste and Youngblood Henderson 2000; Cajete 2000; Wuttunee 2000, and Dudgeon 2003). This is central to the view of Skownan First Nation. Significant efforts have been made by this community to secure the traditional land-base for future generations.

For many reserve communities in southern Canada, an active association with the

land through traditional land-use activities on a regular base is largely a phenomenon of the past. The situation for Skownan First Nation – also a southern reserve community - is different due to its geographic location on the edge of the southern boreal forest. Skownan First Nation has maintained a strong link to the land north of the reserve through traditional land-use activities (Stock 1996). The number of people involved in land-use activities has increased in recent years. The sustainable wildlife programs are in accordance with the community's values and vision. The terminology 'sustainable development' is not used in Aboriginal worldview. Instead wisdom and knowledge are passed through the generations through 'teachings' to ensure that the needs of future generations are met (RCAP 1996a; Battiste and Youngblood Henderson 2000; Wuttunee 2000).

Many people in Skownan First Nation enjoy a measure of self-sufficiency based on food resources from the land. In recent years, the development of the Chitek Lake and Inland Lake fisheries has provided additional income to an increasing number of band members. This is the kind of economic development and sustainable growth that the people of Skownan First Nation envision for a number of local resources. The Chitek Lake Wood Bison Herd and the Chitek Lake Protected Area offer to provide the opportunity for sustainable development. These developments are culturally appropriate and in accord with the community's values, visions and worldview and in accordance with Canadian law. The following section of this chapter examines how Aboriginal worldview compares to sustainable development.

2.4 Sustainable Development In Comparison to Aboriginal Worldview and Stewardship

As mentioned before, fundamental and central to Aboriginal worldview is the integrated spiritual link to all living creatures and the sacred land (Wenzel 1991; RCAP 1996a; Berkes 1998; Battiste and Youngblood Henderson 2000; Whitley 2000; Wuttunee 2000; Dudgeon 2003). This affects the decision making process of Aboriginal communities from traditional land-use activities to decisions regarding possible economic activities on the land (Wuttunee 2000, p. 77). The spiritual dimension is not an element of sustainable development in the literature as it stands. Most sustainable development scholars find spirituality and religion irrelevant to the discussion of sustainable development (Moffatt 1996; Wuttunee 2000; 77). According to Wuttunee (2000) only few approaches “have been developed to incorporate spirituality into their definitions of sustainable development but they are in the minority” (p. 77). They come from work with Aboriginal populations (Barg *et al.* 1997). In the environmental philosophies, only deep ecology makes a connection to spirituality. According to Capra (1996)

“deep ecology recognizes the intrinsic value of all living beings and views humans as just one particular strand in the web of life. Ultimately, deep ecological awareness is spiritual or religious awareness” (p. 7).

Modern western worldview is founded on the division of spirituality / religion and science. It derives from the beginnings of science and rationality. Spiritual connections to the earth can be found in western pre-Christian societies (Freeman 2000). Some scholars see this separation as one of the factors that influence the narrow approach to natural resource development based on a premise of an unlimited resource base and a lack of accountability and responsibility by decision makers to the community beyond their shareholders (Hawken 1993; Bodley 1999, 2001; Maybury-Lewis 2002; McGrew 2000). In order to better understand Aboriginal communities, one must recognize and accept the Aboriginal spiritual worldview - without necessarily understanding it. Recognizing Aboriginal spirituality and its place in research and development will create

new understandings and ideas in land and resource developments. More on the Aboriginal spiritual connection to the land is presented in chapter eight.

This understanding may open doors to development that will include Aboriginal communities. The research of this dissertation is proof of this philosophy. The researcher did not understand Aboriginal worldview for a long time but sensed that there was something going on that was unique to the Aboriginal community. Due to the long-time involvement with Skownan First Nation and two other First Nations communities, the researcher started to understand some of the spiritual values in relation to the land. Sustainable development can work hand-in-hand with Aboriginal worldviews in order to facilitate economic development with Aboriginal communities. Sustainable development is a relatively new western philosophy. It offers an avenue that can be combined with Aboriginal worldviews. The synthesis of both philosophies can provide a new foundation for economic development that provides benefits to Aboriginal and non-Aboriginal communities to a much larger extent as it exists presently.

Many Aboriginal people are not open to share spiritual teachings based on the negative experience with Christian churches. Aboriginal communities are approachable to varying degrees about these teachings. Generally speaking, Skownan First Nation is not open to outsiders about its traditional spiritual teachings. Spirituality and religion are sensitive issues with this community. It has created divisions among community members and family clans. For a long time, community members were not openly practicing Aboriginal spirituality. During the last ten years, spiritual teachings have been slowly brought back. A small group - the 'cultural people' - is practicing Aboriginal ceremonies. Some Christian community members reject Aboriginal ceremonies whereas others accept both. This is a well-established pattern in Aboriginal communities across Canada (Kulchyski *et al.* 1999, p. xxi ; Wuttunee 2000, p. 18 and 70).

Nevertheless, the core value of Aboriginal people is the sacredness of the land and the interconnectedness of all living things (Wenzel 1991; RCAP 1996a; Battiste and

Youngblood Henderson 2000; Wuttunee 2000; Dudgeon 2003). It is this fundamental relationship with the land that has led to the alternative developments on the land through the efforts of Skownan First Nation. The Teme-Augama Anishnabai of Ontario (Lake Temagami) developed a definition of Aboriginal stewardship and sustainability. They dealt with similar forestry and road development issues on traditional lands:

Forest stewardship means: the forest belongs to the life that lives within it and that the future generations of this life are dependent upon the continuity of the forest. Human beings must respect forest life and integrate human uses of the forest in a manner compatible with the continuity of forest life. Forever.

Sustained life means: protecting and maintaining the life of the earth, air, and water that gives life to the forest, which protects and replenishes the earth, air, and water, as well as creating an interdependent home for all biological lifeforms within it. Designated trees and / or forest areas must be allowed to die, fall to the earth, decay, and return to earth, thus giving life to earth, which can then support the growth of a new forest for future generations, forever.

Sustained development means: (1) a political system that secures effective citizen participation in decision-making; (2) an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustainable basis; (3) a social system that provides for solutions for the tensions arising from disharmonious development; (4) an education system that respects the obligation to preserve the ecological base for development; (5) a technological system that can search continuously for new solutions; and (6) an administrative system that is flexible and has the capacity for self-correction (Potts 1989, p. 208-209).

The Skownan First Nation efforts and actions must be seen in this manner. According to Potts (1989) “the environmental impact of the removal of a forest is long-term; the economic gain is not” (p. 209). People of Skownan First Nation have expressed the same view. Skownan First Nation demands long-term sustainable land and wildlife developments that will create long-term economic gains while preserving the environment and species at the same time. This is the foundation of the Skownan Model.

In sustainable development that includes Aboriginal worldview, “a new and revitalized relationship with Mother Earth is being demanded” (Wuttunee 2000, p. 82). Further research is required to understand and define sustainable development inclusive of Aboriginal worldview. A longer timeframe in the decision making process regarding natural resource and land development is necessary in order to allow sustainable development concepts to grow.

Aboriginal knowledge is complementary to Western scientific knowledge (Berkes 1999). One does not replace the other. They both exist parallel to each other. Each has its own strengths, values, limitations and failures (Berkes 1999; Battiste and Youngblood Henderson 2000). Countries like Canada with Aboriginal populations have a need for ecological insight from Aboriginal knowledge of land and resource use, and “the need to develop a new ecological ethic based in part on indigenous wisdom” (Berkes 1999, p. 179). For Aboriginal peoples the participation in the circle of sharing, teaching and understanding is fundamentally important. The ‘Appreciative Inquiry Methodology Project’ and the ‘Vision Seekers Process’ were conducted with these understandings. Acknowledging values as a critical element in sustainable development is essential when Aboriginal communities are involved. Questions of how traditional ecological knowledge (TEK) may be integrated into current resource use policies are important topics for research and discussion (Johannes 1993; RCAP 1996c; Berkes and Henley 1997; Berkes 1998 and 1999; Wuttunee 2000).

The search for new ideas and approaches in dealing with land, natural resource and wildlife issues is pressing in Canada with increasing Aboriginal populations, court decisions that recognize more hunting and resource rights for Aboriginal people, and the ever increasing demand on natural resources by Canadian and world populations. The combination of sustainable development and Aboriginal worldview can provide an avenue for economic development that benefits Aboriginal communities as well as the larger society. Sustainable development must become a reality with increasing world

populations. Aboriginal worldview with its spirituality, wisdom and traditions has much to offer. This research is bringing alternatives to the forefront and is contributing to the discussion of natural resource and wildlife conservation issues in Canada. The Skownan Model developed from the values, visions, and actions of Skowan First Nation is a significant contribution to the Skownan Area in search for approaches of landscape protection in combination with economic development. Other Aboriginal communities may use the Skownan Model as a tool to achieve similar goals.

2.5 Natural Resources and Aboriginal Peoples in Manitoba

For centuries, Canadian Aboriginal peoples have been marginalized in natural resources ownership and management first through the practices of colonialism and then through western economic practices (Buckley 1993; RCAP 1996a and c; Tough 1996; Peters 2000, p. 45). This has resulted in poverty and dependency situations and severely restricted the development of viable First Nations economies and communities. Aboriginal peoples in Canada have been alienated from their traditional use and access to natural resources by the Treaties and subsequent federal and provincial laws and policies (AJI 1991a; RCAP 1996c)

In Manitoba, the Aboriginal Justice Inquiry Report (AJI) was written in response to the two murder cases of Helen Betty Osborne and J.J. Harper and how the justice system handled them (AJI 1991b). At the time it was concluded, "Manitoba's justice system was failing Aboriginal people" (AJI 1991a, p. 2). The AJI Report (1991a) acknowledges that "it is not merely that the justice system has failed Aboriginal people; justice also has been denied to them" (1 p.). In order to deal with the two murder cases and to understand this denial of the social justice system, the commissioners examined the historical roots of the dilemma and the relationship between Aboriginal people and

the justice system. The result of this denial has been profound: "Poverty and powerlessness have been the Canadian legacy to a people who once governed their own affairs in full self-sufficiency" (AJI 1991a, p. 1). Recommendations to improve the system were provided. The commissioners included an extensive section on "Aboriginal & Treaty Rights" (AJI 1991a, p. 115-210) that includes a segment on "Natural Resources" (AJI 1991a, p. 184-194). The commissioners recognized that much of Aboriginal poverty and dysfunction is directly related to the loss of traditional territory and loss of opportunity to exercise traditional activities. A great deal can be traced back to the loss of Aboriginal ownership / stewardship of the land. Aboriginal people have a right to their identity. This right is derived largely from the land (AJI 1991a, p. 116). The AJI report stresses the importance of the historical development of relationship between Manitoba's Aboriginal peoples and the Crown. Treaties are fundamentally important and are considered valid in terms of user rights for Aboriginal people (AJI 1991a, p. 119-122). The continued existence of Aboriginal and treaty rights is stress in the report (AJA 1991a, p. 122-144). The natural resources section of the AJI Report became an important reference for Skownan First Nation for its co-management negotiations with the Province of Manitoba. Skownan First Nation demands its rights of access to the land and its resources in order to exercise its Aboriginal and treaty rights.

Over time, Aboriginal peoples in Canada have become an important force on the Canadian political and legal scenes (AJI 1991a; RCAP 1996a,b,c,d; Peters 2000; Usher 2003). Regrettably, the political and legal success has not been widely transformed into developments to improve the lives and well being of Aboriginal peoples in their communities. Practical application of these legal successes must be incorporated in development programming in order to achieve sustainable social and economic goals that will improve the lives of Aboriginal people in their communities. One such focus on natural resources and their legitimate sustainable development in Canada must be through general acceptance and understanding of Treaty and Aboriginal rights (AJI 1991a; RCAP

1996c,d).

Canada's Aboriginal peoples were recognized as equal partners in natural resource use and management at the beginning of the fur trade. A system comparable to the contemporary notion of co-management of resources was in effect (AJI 1991a; RCAP 1996c,d). At that time Aboriginal people hunted, fished, trapped and gathered, then traded or sold the produce of their work to the traders (Thistle 1986; Dickason 1992; Ray 1996; Tough 1996).

Through the Treaty making processes in Canada, Aboriginal peoples do not hold legal title to their traditional lands enabling them to be decision-making participants in natural resources and land development issues. This situation applies to Skownan First Nation. The First Nation's traditional territory is classified as 'unoccupied Crown land'. In the co-management negotiations the government representatives did not take Skownan's position on its Aboriginal and Treaty rights seriously. In the end it was one of the major rejection factors of the co-management proposal. Despite its disadvantaged position, Skownan First Nation has taken an active position in participating in the decision making process concerning the larger Chitek Lake Area. Through the efforts of participation and negotiation large-scale forestry and road developments were prevented. In the establishment of the new protected areas program and an agreement signed with Manitoba's First Nations representatives, for the first time the Manitoba government confirmed acceptance of Aboriginal and Treaty rights in the newly established protected areas. With this commitment Skownan First Nation saw an opportunity for a change in land designation from 'Forest Management Licence Area' to 'Interim Protected Area'. Skownan agreed enter into a land protection relationship with the Province of Manitoba. This process allowed for the establishment of the Chitek Lake Interim Protected Area.

Access to the land is essential to securing resources for future generations. The treaty making process settled Aboriginal people in small, scattered communities, living on very small portions of traditional lands that provided an uncertain future (Buckley;

Tough 1996; Ray 1996; RCAP 1996b; Peters 2000). Skownan First Nation claims Treaty and Aboriginal rights to traditional resources on unoccupied Crown land. These resources, especially wildlife, were more abundant in pre- and early European contact times (Wenzel 1991; Ray 1998; Krech III 1999). The Indian Act, the Manitoba Natural Resources Transfer Agreement Act (MNRTA) in 1930 and the relationship with the federal and the provincial governments have significantly narrowed the scope of Treaty and Aboriginal rights and thereby the potential for economic development for Skownan First Nation. Gradually, and especially after World War II, the Canadian provincial governments began to exert control over where and how Aboriginal peoples could hunt, fish, trap and gather and the fashion in which they could use and sell their produce from the land. For example, before and at the time of Treaty 2 (1872), the trade and sale of wild game meats, along with fur, fish, berries and other produce of the land, was common practice (Wenzel 1991; Ray 1998; Krech III 1999). The commercial use of game – understood by native people to be part of the Treaty rights - became illegal under the restrictions of paragraph 13 of the MNRTA in 1930, which permits hunting for personal consumption only (Morse 1989, p. 356).

Prior to 1930 the Prairie Provinces had no jurisdiction over fisheries and could not impose any restrictions on Aboriginal fishing. Since 1930, commercial fishing for Aboriginal peoples has become regulated in the Prairie Provinces. Both Parliament and the provincial legislatures “may impose a tax by way of licence as a condition of the right to fish” (McNeil 1983, p. 18). Personal sales of fish are illegal. Fish caught under Treaty number can only be used for personal consumption. With these developments, Aboriginal peoples lost most their commercial enterprises and the opportunity to develop their economies in ways that were culturally appropriate. Aboriginal peoples were subjected to hunting and trapping laws that were based on the wildlife values of the Euro-Canadian society (McNeil 1983; Morse 1989; Wenzel 1991; Tough 1996; Peters 2000).

There are a significant number of natural resource issues that are of considerable

importance and concern to Aboriginal peoples in Manitoba. They fall into three categories. The first one is “the infringement by federal and provincial policies and legislation on the exercise of Aboriginal and Treaty rights by Aboriginal people” (AJI 1991a, p. 184). The second category relates to “the negative repercussion for them produced by large-scale exploitation of renewable resources” (AJI 1991a, p. 184). The third issue deals with “the ongoing disputes regarding the exact scope of constitutionally protected rights and their practical import for the decision-making process on the management of natural resources” (AJI 1991a, p. 184). These three categories exist to varying degrees across Canada. Aboriginal communities continue to challenge these circumstances.

Aboriginal peoples were to have been partners in the new arrangement following treaty, “with an equal say in defining their on-going relationship with the Crown. They have been denied that” (AJI 1991a, p. 118). The treaties, according to the understanding of Canada’s Aboriginal peoples,

“were arrangements between two groups who had agreed to share the land and respect each other’s autonomy. Aboriginal people wanted to choose and direct how Western influences would affect them, but they never got the chance” (AJI 1991a, p. 118).

The European objective was to exercise complete control over the land as fast as possible to make it safe for settlement and to access its resources (AJI 1991a; Tough 1996; Peters 2000). The AJI (1991a) states that “in negotiating the treaties, the newcomers sought to provide the minimum in benefits in return for peace and control of the land” (p. 117). Canada’s Aboriginal people reject the standard of minimum benefits as well as complete control of the land. Aboriginal people insist that the Crown respect the “spirit” and “intent” of the treaties as understood by them, and not just the precise written “terms” (AJI 1991a, p. 118).

Large-scale hydro-electric and forestry development projects in Northern Manitoba have caused significant negative impacts on Aboriginal communities. By

1994, forest licenses had been allocated to forestry covering the entire merchantable forest in Manitoba (Stock 1996, p. 33). In the AJI Report (1991a) it is recognized "that large-scale forestry operations can have negative effects upon the exercise of Aboriginal and Treaty rights in relation to land usage and wildlife harvesting (AJI 1991a, p. 191). The report recommends that future developments should only proceed after consultation and agreement has been reached with the Aboriginal communities to be affected (AJI 1991a, p. 191-192). Skownan First Nation demanded such consultation and agreements when the large-scale forestry and road developments were first proposed, but was denied this process (Stock 1996, p. 47-50). Such agreements should address efforts to minimize or eliminate any negative environmental repercussions, promote Aboriginal economic opportunities, and provide suitable alternative lands and financial compensation (AJI 1991a, p. 191-192; RCAP 1996d, p. 557-684). None of these issues were addressed despite the demands of Skownan First Nation (Stock 1996, p. 222-225). The Aboriginal Justice Inquiry Report recommended that:

A moratorium be placed on major natural resource development projects unless, and until, agreements or treaties are reached with the Aboriginal people in the region who might be negatively affected by such projects in order to respect their Aboriginal and treaty rights in the territory concerned (AJI 1991a, p. 175).

Forest issues and Aboriginal rights have received little attention in Canadian courts, yet they constitute some of the most controversial matters (AJI 1991a, 191-192). Aboriginal peoples in Canada have a constitutional interest "in off-reserve forests that must be respected" (AJI 1991a, p. 1992). Canadian law acknowledges that Aboriginal people have rights to forests on reserves but not off reserves. However, the development of Canadian law, the AJI Report recognizes an Aboriginal interest in off-reserve forests that has a constitutional foundation through Aboriginal and treaty rights.

The AJI Report (1991a) recommended that forestry management could be best realized by co-management agreements between the Province and the Aboriginal groups

affected (p. 191-192). From 1990 to 1997, efforts to arrive at a co-management solution between Manitoba Conservation (then Natural Resources) and Skownan First Nations were unsuccessful. Aboriginal land-use continues not to be recognized as an integral part of natural resource use issues in Manitoba. Following failed attempts to reach a co-management agreement, Skownan First Nation was left with little hope to have the community's concerns addressed, and little prospect to change the outcome of the proposed large-scale forestry and road developments. As a last resort, Skownan First Nation decided to participate in the 'Clean Environment Hearings' in October 1997 and later in the provincial 'Protected Areas Program' to find an alternative solution.

Due to Canada's large land base there is an opportunity for the restoration of expansive wildlife populations through integrated land management with Aboriginal communities. These efforts are largely undeveloped and mostly restricted to national or provincial parks. Canada has not tapped into these avenues to a significant extent. Such developments may require local modification of current resource development activities. Restored wildlife populations could be much better managed to generate economic revenue for local communities. It would generate expansion of the industries in exotic meats, hunting expeditions, educational seminars and eco-tourism. The Chitek Lake Wood Bison Herd could become part of these developments. The philosophies of sustainable development and Aboriginal worldview are the essence of such developments with Aboriginal communities.

2.6 Summary of Chapter Two

In summary, the development of theory in sustainable development and Aboriginal worldview is related to major changes in perspectives among scholars, policy makers, and the public. Dissatisfaction with contemporary resource management is widespread and provides a driving force to find new ways (Bateson 1972; Berkes 1998;

Youngblood Henderson 2000; Dudgeon 2003). Interest in sustainable development and Aboriginal worldview can be interpreted “as a search for alternatives in human-environment relationships and resource stewardships” (Berkes 1999, p. 23). The Skownan Model provides a significant approach in this search. A significant portion of the model has been applied in the Skownan Resource Area already and has allowed for land protection with sustainable economic development based on animal populations. The First Nation envisions further implementations of this kind of development.

Many scholars trained in the Western university systems are challenging the assumptions and methodologies normally applied in research about Aboriginal cultures and issues. Researchers are trying to understand Aboriginal worldviews, rights, land and resources management systems, traditional ecological knowledge and much more in order to find better ways of land and species protection with economic development potentials. A new academic dialogue and a new body of literature are being developed (Colorado 1988; Wenzel 1991; Kawagley 1993; Berkes 1998, 1999; Kulchyski *et al.* 1999; Simpson 1999; Smith 1999; Battiste 2000; Battiste and Youngblood Henderson 2000; Cajete 1995, 1999, 2000; Wuttunee 2000, and Dudgeon 2003).

The following chapter evaluates Canada’s historical and contemporary role in protecting land, its dealings with the Aboriginal peoples in this regard and how it has changed over time. Historically, the Provinces have lacked the involvement of Aboriginal peoples in establishing protected areas. Manitoba’s protected areas program has made an attempt to change that situation. The change in policy made it possible for the Chitek Lake land protection. With this Skownan First Nation was able continue with the development of its alternative sustainable land-use plans.

Chapter III

3.1 Introduction to Land Protection in Canada and Manitoba

Approximately twenty-five to thirty percent of the world's landmass continues to be in a natural state, with minimal human impact (Wittbecker 1995). Most of these lands consist of arctic and sub-arctic regions, and deserts and are impacted by the use of Aboriginal peoples. Wherever possible natural ecosystems have been turned into agricultural -, natural resource -, and urban landscapes. It leaves little or no room for the retention of large protected areas. Canada is one of the few countries in which continuing opportunity exists to set aside large portions of land for protection. In the context of this dissertation, the terminology 'natural landscapes' and 'wilderness' are used in general to refer to landscapes other than agricultural and urban landscapes. It is important to note the fundamental difference of 'pristine wilderness' protection as seen by environmentalists and the need to protect lands for the continued access of traditional land-use activities by Aboriginal peoples. The 'pristine wilderness' often excludes human use other than tourism whereas Aboriginal people consider themselves and their activities as part of nature (AJI 1991a, p. 115).

The broad objective of sustainable development is to facilitate allocation of land to the uses that provide the greatest sustainable benefits and to promote the transition to a sustainable and integrated management of land resources. Protected areas and the rights of Aboriginal peoples and their communities are part of this objective (Brundtland 1987; United Nations 1992). The literature review presented here examines Canada's and Manitoba's role in land protection efforts from the exclusion of Aboriginal peoples to their inclusion into these programs. This shift is fundamentally important for the establishment of the Chitek Lake Interim Protected Area. Aboriginal peoples require participation in the establishment and / or management of protected areas (United Nations 1992).

In Canada, the most complete transformation from a natural to a cultural

landscape has taken place across the southern part of the country (Edwards 1989, Eidsvik 1989). For most of southern Ontario "there is no longer sufficient wild country to allow for the creation of fully representative protected areas" (Morrison 1995, p. 20). It was estimated that the rate of natural habitat loss in Canada averages 100 hectares per hour (Kavanagh *et al.* 1995, p. 3). The world's demand for pulp, paper, wood and minerals continues to expand logging and mining operations into hitherto natural landscapes. At the same time, Canada has a goal of establishing a network of protected areas to represent each natural region. On Canada's land base, more than 450 natural regions have been defined by the Provinces and Territories for the purpose of protecting lands. Similar work is underway to identify natural marine regions (Recchia and Broadhead 1995; WWF Canada 1998). Protection of inland waters, however, has been largely neglected.

The Aboriginal peoples are caught in the juxtaposition of choosing between economic development and retention of traditional land-use practices. First Nations are also seeking recognition of their inherent right to self-government in conjunction with land and resource bases adequate to support their communities (Erasmus 1989). This ongoing debate between use, protection and the creation of economic revenue is integral to protected areas consultations and negotiations with Manitoba's First Nations and other local communities. It is essential in the debate on how to implement sustainable development initiatives with First Nations.

In the 1960s, with the 'environmental awakening,' environment, wilderness, and wildlife became major social-political issues. Preservation of wilderness in Canada became a widely recognized national ambition (Edwards 1989). Canada is experiencing an increasing demand for wilderness parks featuring little or no infrastructure development. These are parks that are mostly not accessible by roads and limit tourism based on their remoteness of location. The Chitek Lake Interim Protected Area has the wilderness / backcountry classification which means no or minimum tourism developments in terms of trails, camping sites, service areas. Basically the designated

area stays the same.

3.2 The Concept of Wilderness and the Protection of Wilderness

Despite some similarity, there are fundamental differences between Aboriginal and non-Aboriginal perceptions of nature. The Aboriginal perception is that people are an integral part of the natural environment. This contrasts with the anthropocentric belief of the Western-Judeo-Christian view of being apart from and superior to nature. To the Aboriginal person 'wilderness' is an extension of his or her world and culture (Erasmus 1989; Colorado 1992). Physical well-being is closely associated with nature. Aboriginal peoples have long occupied even the 'wildest' parts of Canada. Ancient graves and habitation sites prove Aboriginal occupation of most of Canada (Morrison 1995, p. 20).

The 'wilderness concept' evolved in contrast to urban settings. The majority of Canadians live in urban developments. As explained by Oakes and Riewe (1997), the concept of untouched wilderness "has its roots deep in Western-Judeo-Christian fundamentalism" (p. 1). Nevertheless, the experience of wilderness is inherent to the historical roots and national identity of Canadians (Erasmus 1989; Littlejohn 1989). Wilderness is seen as land not altered by people; its plant and animal life affected only by natural process. The human species is regarded as an intruder and not as a part of nature. In the past, protected area management tends to reflect this philosophy (Edwards 1989; Morrison 1995, p. 19).

The differences between a conservationist view of protected areas and one based on Aboriginal rights are at the root of disagreements between the two groups. For example, when First Nations people were allowed to hunt within the boundaries of Ontario's provincial Algonquin Park - as part of land-claim negotiations - many wilderness advocates were outraged. To them recognizing First Nations rights violated the park's integrity as a protected area (Morrison 1995, p. 25). It was government policy

that permitted Aboriginal hunting, fishing and trapping in Ontario's provincial parks. In September 1991, a 'Statement of Political Relationship' between the government of Ontario and Ontario's Aboriginal organizations announced that in the creation of new provincial parks and protected areas, all Treaty and Aboriginal rights would be respected (Morrison 1995, p. 24).

Conservationists fear the long-term effects of hunting technology on wildlife survival. They are concerned that Aboriginal hunters may threaten or eliminate wildlife species. Research, however, suggests that traditional hunting patterns do not eliminate wildlife. It is the loss of wildlife habitat through the fragmentation of the natural landscapes that diminishes wildlife (Stock 1996, p. 189-217; Nepinak and Stock 1998, p. 161; Brody 2001; Nadasdy 2003).

With on-going urban and industrial developments, both in Canada and the world, wild areas have become 'endangered spaces' (Littlejohn 1989). There is an increasing awareness that unprotected wilderness and 'traditional' lands are vanishing. Protected areas established in collaboration with Canada's Aboriginal people provide a way to blend the protection of traditional lands and land-uses with on-going Aboriginal and Treaty rights. In Manitoba, the Wapusk National Park, the Chitek Lake Interim Protected Area and the Poplar/Nanowin Rivers Interim Protected Area are examples of this.

Increasingly, research suggests that traditional Aboriginal land-use practices have created 'cultural' landscapes over thousands of years. The use of habitat burning has been a major tool employed by hunting and gathering societies (Lewis 1982; Pyne 1982, 1993; Oakes and Riewe 1997). Aboriginal peoples have always been part of the 'natural' environment, and if natural ecosystems are to be protected, one must realize that "they must support the anthropogenic forces which initially created and maintained them" (Oakes and Riewe 1997, p. 8). Traditional land-use activities are part of existing diverse ecosystems (Nepinak and Stock 1998, p. 161). The inclusion of these activities will help in the protection and maintenance of natural ecosystems. WWF Canada has adopted the

principle that certain human uses are “compatible with the maintenance of ecological integrity” (Kavanagh *et al.*, 1995, p. 7).

In 1996, WWF International released the policy guide ‘Indigenous People and Conservation: WWF Statement of Principles’ (WWF International 1996). WWF recognized the need for partnerships with Aboriginal peoples for conservation. WWF International acknowledged that recognition of Aboriginal rights was necessary to reach agreements between conservation organizations and Aboriginal peoples. The organization supported the view that Aboriginal peoples have rights to the lands, territories, and resources that they have traditionally owned or otherwise occupied or used. WWF International declared a commitment in assisting Aboriginal organizations in the design, implementation, monitoring, and evaluation of conservation activities (WWF International 1996). In recent years, WWF Canada and many Canadian government agencies have realized the importance of involving Canada's Aboriginal peoples from the outset in the planning of protected areas.

3.3 Canada's Role in International Conservation Agencies

Canada plays a significant international role in conservation. However, it was the country of Switzerland that pioneered landscape protection with the creation of the 'Swiss League for the Protection of Nature,' the earliest attempt to organize a multinational thrust. The Swiss saw an opportunity to create a worldwide network of protected areas (Eidsvik 1989, p. 33). Canada joined in the efforts of creating this global chain with its protected areas programs (Hummel and Hackman 1995, p. xix). Numerous international conventions have led to a global understanding of technical classification and development of programs for creating protected lands at the national and sub-national levels. As Haque *et al.* (2000) writes “Canadian public institutions and special interest groups have played a leadership role in formulating and implementing World

Conservation Strategy” (p. 111).

In 1948, the ‘International Union for the Conservation of Nature and Natural Resources’ (IUCN) was established in Europe. Under the mandate of the IUCN, the ‘World Heritage Convention’ and the ‘World Charter for Nature’ were drafted. In addition biosphere reserves and a wetlands-protection program were developed (Eidsvik 1989). In 1972, the World Heritage Convention (ratified by Canada in 1976) was adopted by the United Nations. It places obligations on nations to assist one another in protecting the sites as well as requiring them to assume a primary responsibility for their own heritage. With more than one hundred countries as signatories, the World Heritage Convention in whose development Canada has been an active partner is the most universal of the international conservation conventions. Thirteen World Heritage Sites¹ have been created in Canada to protect areas of outstanding value (Eidsvik 1989).

The World Charter for Nature was adopted by the U.N. General Assembly in October 1982. The Charter states that

"special protection shall be given to unique areas, to represent samples of all the different types of ecosystems, and to the habitats of rare or endangered species" (Eidsvik 1989, p. 36).

As the second-largest country in the world, Canada has both the opportunity, and the responsibility, to carry out the charter’s mandates. Through a collaborative program, ‘Man and the Biosphere’ (MAB) run by IUCN and UNESCO, ‘biosphere reserves’ were identified as a mechanism for building a global network of protected areas, integrating conservation and development. A biosphere reserve is an internationally designated protected area managed to demonstrate the value of conservation. The concept involves a central or core protected area surrounded by a buffer zone of mixed land-use. Globally,

¹ World Heritage Sites are divided into ‘natural’ and ‘cultural’ sites. Examples of natural sites are: Banff, Jasper, and Wood Buffalo National Park in Alberta, Nahanni National Park in the Northwest Territories, and Gros Morne National Park in Newfoundland. Examples of cultural sites are: Head-Smashed-In Buffalo Jump in Alberta, and the historic area of Quebec City (Eidsvik 1989; Parks Canada n.d.).

1988, 269 biosphere reserves had been created, six of which are located in Canada (Reid 1982; Richard 1987; Eidsvik 1989). The six in Canada are Waterton Lakes National Park (Alberta), Riding Mountain National Park (Manitoba), Mont St-Hilaire Nature Conservation Centre (Quebec), and Long Point Provincial Park (Ontario) (Eidsvik 1989). Two additional MAB reserves were established in Ontario: Fathom Five National Marine Conservation Areas (NMCA) and Bruce Peninsula (Parks Canada n.d.).

In 1989, the IUCN listed over 3500 protected areas in more than 125 countries. Of these, more than 1000 were national parks. The remainders include scientific reserves, landmarks, game reserves, and protected landscapes. In Canada, provincial parks that are free of resource extraction are incorporated in IUCN's national parks category (Eidsvik 1989).

In 1991, the 'Canadian Environmental Advisory Council' advised the federal Minister of the Environment that a network of protected areas is an integral part of the global sustainable development agenda. In 1993, the principal recommendation of the 'Fourth World Congress on National Parks and Protected Areas' urged that all governments and appropriate national and international bodies should take action to consolidate and enlarge national systems of well-managed protected areas with buffer zones and connecting corridors (Kavanagh *et al.* 1995, p. 3). Among non-government organizations, the World Wildlife Fund² (WWF) is among the most active and best known. WWF and IUCN constitute a global complex of affiliated organizations, with shared headquarters in Switzerland (Eidsvik 1989). WWF Canada played an important role in the development and monitoring of Canada's efforts in the conservation of endangered spaces, and was actively involved in the discussions about the establishment of protected areas in Manitoba until the summer of 2000. After that the WWF Manitoba office dissolved with the ending of the endangered spaces campaign.

² WWF International is also called World Wide Fund for Nature.

3.4 Endangered Spaces Campaign in Canada

In 1987, the Federal 'Task Force on Park Establishment' urged the Federal Government to complete the national parks system by the year 2000 (McNamee 1995, p. 163). In September 1989, the 'Endangered Spaces Campaign' was launched by the World Wildlife Fund (WWF) Canada, with the goal of establishing a network of protected areas representing all the natural regions of Canada by the year 2000. Achieving this goal required that provincial and territorial governments took initiatives within their own systems to protect land (Finkelstein 1992, p. 35; McNamee 1992, p. 55).

In 1991, the Endangered Spaces Campaign was supported by a unanimous motion from the House of Commons. In 1992, it became a signed 'Statement of Commitment' from the Tri-Council Meeting of all Federal and Provincial Environment, Parks and Wildlife ministers. The Honourable Harry Enns, Minister of Natural Resources of the Province of Manitoba at that time, was one of the three government officials who signed the 'Statement of Commitment to complete Canada's Networks of Protected Areas' that made the Endangered Spaces goals an element of public policy (Hummel & Hackman 1995, p. xi). Each Province and Territory, and the Federal government, committed itself in writing to achieve the Endangered Spaces goal of completing a network of representative protected areas by the year 2000. This was the most extensive public policy commitment dedicated to protecting lands and environments in Canada (Hummel and Hackman 1995, p. xix). The establishment of the Chitek Lake protected area was part of this commitment.

In 1989, at the start of the campaign, approximately 2.6 per cent of Canada's area was legally protected from logging, mining and hydro-electric developments. At the midpoint of the campaign in 1995, 5.2 percent; in 1996, 5.5 percent; in 1997, 5.7 percent; in 1998, 5.9 percent; and in 1999, 6.4 percent were protected (Hummel and Hackman 1995, p. xviii; WWF Canada 1996; WWF Canada 1997a; WWF Canada 1998; WWF Canada 1999). In July 2000, at the end of the Endangered Spaces Campaign 6.84 percent

of Canada were protected (WWF Canada 2000), 5.16 percent short of the envisioned goal of twelve percent. As of 2004, the percentage had not increased (Dearden and Dempsey 2004).

In 1992, the 'Canadian Council of Forest Ministers' signed the 'Canada Forest Accord' in order support the protected areas initiatives. Forest industry, labour, Aboriginal and conservation group representatives also signed the accord. It was agreed that all members of the forestry community would work towards completing a network of protected areas representative of Canada's forests by the year 2000 (Canadian Council of Forest Ministers 1992).

In 1994, the mining sector signed the 'Leadership Accord' with the principle of creating and setting aside land protection for the 2000 goal (Whitehorse Mining Initiative, 1994, p. 19). Industry is generally inclined to fight the establishment of new protected areas. To a large degree, the industries agree to the protection of areas that are of relatively low interest to them. For example, the mining section in Manitoba reviewed the Chitek Lake proposal and agreed to the establishment of the interim protected area. In the case of Chitek Lake, there is a small ore deposit but it was decided that it was of insignificant importance to the Mining Branch.

In May 1998, Canada committed itself once again to the protected areas initiative in the federal report entitled 'Implementing the Canadian Biodiversity Strategy: Protected Areas.' The establishment of protected areas and peripheral zones surrounding them is an important element of Canada's effort to conserve biodiversity (Canada 1998). Not much work has been done in regards to peripheral zones surrounding protected areas. For example, new Tolko logging plans for an area directly adjacent to the east of the Chitek Lake Protected Area for 2005/06 are proposed. No consultation with Skownan First Nation by the provincial government about these plans has taken place.

The Endangered Spaces Campaign set a significant challenge for Canadians and their leaders to protect a representative example of the country's 486 terrestrial regions

(WWF Canada 2000). For the first time, Canadians were presented with a national action agenda to address landscape protection on a large scale. Between 1989 and mid-2000, almost thirty nine million hectares were added to Canada's parks and protected areas network through the designation of over 1000 new parks and reserves. The extent of protected land was more than doubled during the ten-year campaign (WWF Canada 2000).

During the campaign, there was a dramatic increase in the pace of designation, such as had never been seen in Canada before. The campaign successfully introduced the concept of a consistent, systematic approach to protected areas designation (WWF Canada 2000). It also became clear that, over the course of the campaign, most governments seriously underestimated the work that had to be done to adequately protect Canada's natural areas. The campaign remained 5.16 percent short of its goal of 12 percent (WWF Canada 2000). The Endangered Spaces Campaign was terminated as of July 1, 2000. WWF Canada established no national follow up program. This is a significant shortcoming of the program. No specific reasons for the ending of the program were given. It was left to the individual provinces and territories to continue with land protection activities. No pressure has been placed on governments to reach the twelve percent goal since.

3.5 Aboriginal Issues in Relation to Protected Areas

In the past, the creation of most protected areas in North America excluded Aboriginal peoples. The establishment of Riding Mountain National Park in 1933 exemplifies this unfortunate part of Canada's national parks history. The people of today's Keeseekoowenin First Nation were evicted. Their houses were burned (Morrison 1995, p. 21). Many similar examples can be documented across Canada and the United States where the local Aboriginal people were forced out of the areas when parks were

established (Oakes and Riewe 1997, p. 5).

In Canada, the 'National Parks System' was established in 1885 (Banff National Park). It formed one of the earliest and most significant ways of protecting land. The establishment of national parks has profoundly affected local Aboriginal communities and their traditional land-use activities. North American parks and protected areas have generally been created in the 'public interest.' Most environmentalists support this concept, insisting that it is a governmental responsibility to protect nature for the benefit of future generations. Aboriginal peoples dispute the term 'public.' In their view, it automatically places the interests of the larger society above Aboriginal and Treaty rights and interests (Morrison 1995, p. 22). Reserving lands under legal protection, as in national parks, has caused some divergences between Canada's Aboriginal peoples and the environmental community (Erasmus 1989). Aboriginal people continue to depend upon the natural resources, in particular wildlife that national parks seek to protect.

In the 1960s and early 1970s, opposition against the establishment of national parks and other protected areas developed in Aboriginal communities. Protected areas were established without local consultation, leading to expropriation of land and to the loss of Aboriginal and/or Treaty rights and traditional land-uses. For many years, Aboriginal communities expressed strong concerns about the implications of the establishment of protected areas (Finkelstein 1990 and 1992, p. 39). The objections stimulated change in governmental policies, so that now the support of affected communities must be secured. Environmental protection of lands and waters is confronted with the issues of Treaty rights, Aboriginal Title and land claims in many areas across Canada (Erasmus 1989). The experience with parks and protected areas, as well as with fish and wildlife regulations, has made many Aboriginal people skeptical with respect to both government and environmental organizations (Morrison 1995, p. 20). Formerly, rules and regulations pertaining to protected areas characteristically excluded traditional land-use activities, in particular, from national parks. Aboriginal and Treaty

rights were eliminated in the name of conservation or the public interest. It is illegal to remove animals and plants for food or medicine from most national parks (Erasmus 1989).

The failure to consult with Aboriginal people with respect to proposed northern national parks resulted in the creation of a 'National Park Reserve' category under an amendment to the 'National Parks Act' in 1974 (McNamee 1992, p. 55). In areas subject to unresolved land claims, National Park Reserves³ might be established. In such cases, the Act and Regulations apply, but traditional hunting, fishing and trapping activities continue (Finkelstein 1990 and 1992, p. 34). The final boundaries remain open to negotiation and are only established upon resolution of the claim. Where lands are subject to comprehensive land claims, a new park can be established as part of the land claim. Comprehensive land claims apply to those parts of Canada without treaties, such as British Columbia, Quebec, Newfoundland-Labrador, Yukon and the Northwest Territories (WWF Canada 1993). The Northern Yukon National Park, created in 1984, was the first National Park in Canada to be negotiated through a native land claim settlement (Finkelstein 1990 and 1992, p. 34). In Manitoba, provisions were made in the Wapusk National Park Agreement to deal with Treaty land entitlement issues and land selections (Canada and Manitoba 1996a, p. 3).

The former Assembly of First Nations National Chief George Erasmus developed some criteria for the establishment of protected areas with Aboriginal communities. He emphasizes that Aboriginal land title and Treaty rights must be dealt with first. He demands co-management arrangements for the process of establishment and later management. It is important to Aboriginal communities that Native people are trained and hired for conservation purposes (Erasmus 1989, p. 95). Canada's Aboriginal people

³ For example, the Pacific Rim National Park Reserve is located on the West coast of Vancouver Island (British Columbia); the Kluane National Park Reserve is located in the southwest corner of the Yukon.

are becoming progressively more involved in negotiations for the establishment of protected areas, and are increasingly becoming co-managers of these areas. One of the most important issues for Aboriginal communities is the continuation of traditional land-use activities on lands that have been selected for protected area status (McNamee 1995, p. 168). Aboriginal people also demand access rights to existing national parks for traditional activities.

In 1974, the National Parks Act was amended to recognize Aboriginal hunting, fishing, trapping and gathering in parks north of the 60th parallel. The same recognition has generally not been extended to southern national parks (Morrison 1995, p. 21). However, some traditional land-use activities were allowed in the Pukaskwa National Park on the north shore of Lake Superior in Ontario, as well as in several national park reserves south of the 60th parallel. However, these activities in this park and these park reserves are not officially recognized under the National Parks Act. Since 1994, it is national parks policy to involve Aboriginal peoples in park planning and management as well as to recognize Aboriginal and Treaty rights in the establishment of new national parks (McNamee 1997a, *pers. com.*).

The creation of the 'Wapusk National Park' set new precedence in establishing national parks with Aboriginal people. Federal and Provincial government officials, the local government of the District of Churchill, and the Fox Lake and York Factory First Nations represented by Manitoba Keewatinowi Okimakanak⁴ (MKO) negotiated the Wapusk National Park. A co-management board for the Wapusk National Park was created to develop the park management agreement and plan. The co-management board includes representatives of from the local Aboriginal organizations to deal with park issues (WWF Canada 1997a and b). The Wapusk National Park Agreement respects existing Aboriginal and Treaty rights (Canada and Manitoba 1996a, p. 8-11). The

⁴ Manitoba Northern Chiefs

Federal/Provincial 'Wapusk National Park Memorandum of Agreement' for Wapusk National Park was signed in April 1996. The park was officially established in 1997 (WWF Canada, 1997a & b). The Wapusk National Park provides an example of the ability to arrive at an agreement that includes First Nations' aspirations and Treaty rights. This process sets a new standard for the proposed Lowlands National Park (WWF Canada 1997a and d) and other categories of protected areas. In Manitoba, the Treaty Land Entitlement (TLE) Agreement permits First Nations' land selections within a new National Park (Canada and Manitoba 1996a, p. 3). TLE Agreements are a major concern with the proposed Lowlands National Park and are significantly slowing down the process.

An increasing number of potentially or already established protected areas are becoming subject to land claims and claims of Aboriginal and Treaty rights. However, there have been many examples of cooperation among Aboriginal peoples, different levels of government and conservationists with respect to protected areas, especially in the far north (Morrison 1993, p. 16-18 and 1995, p. 19). First Nations are forming a third level of government and are increasingly involved with protecting lands and waters formerly controlled by Federal or Provincial jurisdictions only. The mandate of Federal and Provincial government agencies is to continue to seek co-operative arrangements and to involve Aboriginal people in the future development of Canada's network of protected areas.

Skownan First Nation decided to the participation in Manitoba's protected areas initiative once the province agreed that Aboriginal and Treaty rights were recognized as integral components of the Chitek Lake Interim Protected Area. The agreement was signed in the 'Memorandum of Understanding' (MOU)⁵ and the Skownan Band Council Resolution (BCR).

⁵ It was signed in 1998 between the Assembly of Manitoba Chiefs, MKO and the Department of Natural Resources.

3.6 Manitoba's Commitment to the Endangered Spaces Campaign

When the Endangered Spaces Campaign was launched in 1989, Manitoba had one national park, at Riding Mountain, several provincial parks, one wilderness park, one heritage river,⁶ and several ecological reserves. None of the twelve natural regions in Manitoba was fully represented (Whelan-Enns 1995, p. 81). Premier Gary Filmon was the first Provincial Government leader in Canada to make a commitment to the endangered spaces concept.

A survey of resource extraction policies and practices of all park systems in Canada in 1990 revealed that Manitoba allowed the greatest range of resource extraction in its provincial parks relative to any jurisdiction in Canada (Watkins 1990). At that time, none of the provincial parks qualified as a protected area according to the Endangered spaces standard. The provincial government tried to advance landscape protection as fast as possible. Manitoba wanted to play a leading role in the endangered spaces campaign, demonstrate good process and score good marks. In order to participate in the network of protected areas, Manitoba planned to protect additional portions of parks and provincial forests as well as to establish new ecological reserves and wildlife management areas (Haque *et al.* 2000, p. 119-120).

In 1992, the 'Natural Lands and Special Places Policy' initiative outlined a framework for a network of protected areas in Manitoba (Manitoba Natural Resources 1996). In May of 1992, the 'Manitoba Round Table on Environment and Economy,' in conjunction with the Manitoba Provincial Government, released a strategy work book: 'Workbook on Natural Lands and Special Places' (Manitoba 1992), to address the many questions, issues and needs pertaining to natural, cultural and heritage resources. The workbook represented the first of eight steps in establishing 'Natural Lands and Special Places Policies.' It was an effort to review and seek comment from the public,

⁶ The Atikaki Wilderness Park and the Bloodvein Heritage River were established in 1985 (Whelan-Enns 1995).

environmental and business communities concerning protected areas policies. The province began to implement its strategy. It developed a methodology to select representative land that might be considered for protected status. Legislation was developed to facilitate the establishment of protected areas (Haque *et al.* 2000, p. 120).

In 1994, the provincial 'Action Plan for a Network of Special Places for Manitoba' was released by Manitoba's 'Sustainable Development Coordination Unit.' The Sustainable Development Coordination Unit, attached to the Premier's Office, was responsible for the Endangered Spaces Campaign in Manitoba. The action plan was a coordinated approach encompassing the 'International Convention on Biological Diversity,'⁷ the federal-provincial commitment to a 'National System of Protected Areas,'⁸ and the Endangered Spaces Campaign of the WWF Canada. The Province of Manitoba adopted the objective of the Endangered Spaces Campaign, to achieve representation of each natural region, with a commitment to protect these lands from commercial logging, mining and hydro-electric development as well as other activities which could significantly affect habitats. To achieve the objective, national parks or other protected areas were to be established (Manitoba 1994a, p. 5-6).

The 'Provincial Network of Special Places' consists of 'Provincial Parks, Provincial Wildlife Management Areas, Provincial Ecological Reserves, Provincial Forests and Provincial Heritage Sites as well as Heritage Rivers and Provincial Special Conservation Areas.' The following land designations complement the Network of Special Places: "Ecologically Significant Areas Program, National Parks, Municipal Parks, North American Waterfowl Management Plan, Prairie Care, Nature Conservancy, Municipal Heritage Sites, Federal Heritage Sites, Canals and Structures" (Manitoba 1994a, p. 9). These designations do not, however, necessarily contribute to the

⁷ The Province of Manitoba adopted the United Nation's 'International Convention on Biological Diversity' which was signed by Canada in June 1992 (Manitoba 1994a, p. 1).

⁸ In November 1992, the Province of Manitoba signed a 'Statement of Commitment to complete Canada's Networks of Protected Areas' (Manitoba 1994a, p. 1).

representation of their natural regions and are not necessarily protected to the Endangered Spaces Campaign standards (Whelan-Enns 1998, *pers. com.*).

Manitoba citizens and organizations began to ratify the Canadian Wilderness Charter, indicating their support for the campaign. In 1990, the Manitoba Wilderness Caucus⁹ formed a coalition with WWF Canada regarding the 'Endangered Spaces Campaign and Protected Areas' (Whelan-Enns 1997, *pers. com.*). The caucus produced an Endangered Spaces discussion map, a curriculum package for Manitoba schools, and broached a wildlife plan. In 1995, the Manitoba Wilderness Caucus dissolved due to disagreements among the membership.

In the summer of 1993, the Manitoba Government tabled new parks legislation, which was amended following public consultation. The preamble to the Manitoba Parks Act confirmed the province's commitment to the Endangered Spaces objectives. However, this legislation continues to allow for resource extraction in provincial parks. Initially, and until 1996, the 'Manitoba Parks and Natural Areas Branch' was not directly involved with the campaign.

In February 1994, the first 'Action Plan for Manitoba's Network of Protected Areas' was released by the 'Sustainable Development Coordination Unit' to direct the establishment of a network of protected areas across Manitoba. A second 'Action Plan for Manitoba's Network of Protected Areas,' based on 'natural-region-representation' science was published in 1996 by 'Manitoba Parks and Natural Areas Branch' (Manitoba Natural Resources 1996). It undertook to promote the establishment of Manitoba's network of protected areas to the year 1998 (Manitoba Natural Resources 1996). This was followed by an 'Update' of the Action Plan, including a '1996 - 1997 Progress Report' and a '1997 - 1999 Strategic Plan Update' (Manitoba Natural Resources 1997). No additional protected areas were added in Manitoba in 1996. Since 1996, Manitoba

⁹ The membership was comprised of the Manitoba Naturalists' Society, CPAWS, the Sierra Club, various recreational user groups and members of the scientific community.

has developed and worked on implementing a 'Strategic Plan' to create a provincial network of protected areas (Manitoba Conservation 2000).

Also in 1996, the Provincial Parks Act was revised after the required public consultation process. The need for tenure and land-use criteria, and for on-going public consultation on land-use issues in parks was a major concern in the consultation process. On one side, individuals and / or groups with a resource interest asked for certainty of tenure and land-use to have access to wood supplies for harvest or to mineralized or oil-bearing areas for exploration and development. On the other hand, for environmentalists, it implied certainty that areas of high ecological value would be protected from logging and development. The public consultation strongly favored the existence of protected areas as well as linking them wherever possible. Participants from industries expressed the view that 'working landscapes' should be maintained with industrial activities in provincial parks (Haque *et al.* 2000).

The 1996 Parks Act clearly defined classification criteria as to boundaries, uses and protection of provincial parks. Development of park management plans became a legislated requirement. Certain land-use categories (Resource Management and Recreational Development) provide for resource use in parks consistent with the park classification. Other classifications (Wilderness, Heritage and Backcountry) prohibit "logging, mining or the development of oil, petroleum, natural gas or hydro-electric power or any other activity specified in the regulation" (Haque *et al.* 2000, p. 123).

In 1997, Manitoba enhanced protection standards in its parks system and in ten wildlife management areas, thereby collectively adding nearly 700,000 hectares to its existing provincial protected areas system. Wapusk National Park was also completed (WWF Canada 1997a and b). In 1998, a Heritage Marsh, a new Ecological Reserve and several Wildlife Management Areas were added, increasing the proportion of protected lands in Manitoba to 6.8 percent (WWF Canada 1998).

In 1995, WWF Canada and Manitoba Keewatinowi Okimakanak (MKO), discussed the creation of a 'WWF Canada/First Nations Accord on Protected Areas.' In the draft, they mutually agreed to create new protected areas through full consultation and participation of affected First Nations. Decisions concerning treaty entitlements, legal agreements and / or land claims were to be dealt with before lands were designated for protection. First Nations treaty rights to trap, hunt and gather in protected areas were to be respected. Once established, protected areas were to be managed with or by First Nations, acknowledging traditional knowledge as integral to management practices (WWF Canada and MKO 1995). A 'Memorandum of Understanding' (MOU) between the Assembly of Manitoba Chiefs, Manitoba Keewatinowi Okimakanak (MKO) and the Department of Natural Resources was signed on March 5, 1998, establishing a consultation process preliminary to the creation of protected areas in Manitoba. The policy guidelines played an important role in the discussions, negotiations and establishment of protected areas. The agreement was unprecedented in Canada for the establishment of protected areas in collaboration with First Nations (WWF Canada, 1998 and 2000). This Memorandum of Understanding was extended in March 2000 for three years to 2003 (Manitoba Conservation 2000). It was extended again in 2003 (CNF Manitoba 2003). In 2004, a commitment was made to fulfill the standards and intent of the MOU (CNF Manitoba 2004).

In 1999, the addition of the interim protected area of Chitek Lake and Poplar River Park Reserve (almost 900,000 hectares together) raised the proportion of protected lands in Manitoba to 8.1 percent (WWF Canada 1999). As well, 8,442 hectares within the Shilo Military Reserve (Douglas Marsh) were added with the cooperation of the Department of National Defence. Wildlife management areas, upgraded as to regulation and protection standards, added a further 6,100 hectares (WWF Canada 1999).

In order for Manitoba to accomplish the objectives of the Endangered Spaces Campaign by the year 2000, a number of issues needed to be resolved. The major issue

identified as a short-fall in meeting the year 2000 goal, was the transfer of land to resource companies before all unprotected landscape features were identified (Whelan-Enns 1995, p. 86). The Endangered Spaces Campaign in Manitoba demanded the establishment of a plan for protecting lands in each Forest Management Licence Area. Increasing the implementation of other protection categories was also suggested, for example, establishing more Ecological Reserves¹⁰ and Wildlife Management Areas¹¹ (Whelan-Enns 1995, p. 86-89). The mandate to meet the Endangered Spaces goal by the year 2000 was challenging, in particular when time-consuming community consultation processes were involved (Jones 1997, *pers. com.*). The challenge of working together with diverse groups and interests made it difficult to predict which site might become the next protected area in Manitoba (Manitoba Conservation 2000).

3.7 Enduring Features and Gap Analysis Methodology

Over time the focus of conservation efforts has shifted from 'single species' to 'wildlife habitat' to 'landscape protection' (Manitoba Natural Resources 1996, Manitoba Conservation 2000). A measuring program had to be developed at the beginning of the Endangered Spaces Campaign to be able to record progress and to compare the different Canadian provinces and territories. In the beginning there was little agreement about what a natural region was, and what protection standards would have to be met in order to consider a region 'represented' (WWF Canada 2000). A system was developed that took geology, topography and climate into consideration as the underlying factors that

¹⁰ The Ecological Reserves Program began in 1973 and is currently governed by the Ecological Reserves Act, passed in 1981. The program involves the selection of areas to preserve plants, animals and natural landscapes. These Reserves also serve as natural history exhibits, and as outdoor laboratories for research into biological processes (Manitoba 1994a).

¹¹ These are areas designated for the management, conservation, and enhancement of wildlife resources. They protect and provide for unique and critical habitats, preserve the integrity and aesthetics of natural lands and improve the capability of habitat to support a wide variety of species. The first WMA was established in 1961 (Manitoba 1994a).

shape ecosystems. The Canadian landscape was subdivided into distinct 'ecological' and 'natural' regions. This method became known as the 'enduring features approach' (WWF Canada 2000).

WWF Canada and the 'Canadian Council on Ecological Areas' (CCEA)¹² developed an 'enduring features and gap analysis' methodology for protected-areas decision-making purposes. Landform representation, applying the 'enduring features and gap analysis' methodology, became a priority in the Manitoba Endangered Spaces Campaign. The Endangered Spaces approach established a framework of terrestrial and marine natural regions across the country, including aquatic and benthic environments, which recognizes broad-scale transitions in climate and landform. Each of these natural regions is made up of a patchwork of smaller habitat types, called, as appropriate, enduring features or seascape units (WWF Canada 1998).

Hence, an enduring feature is a landscape element or unit within a natural region, characterized by relatively uniform origin of surface material, texture of surface material, and topographic relief (Geomatics 1993; Kavanagh *et al.* 1995, p. 4). In this way it is much easier to define these more permanent enduring features, than it is to identify the complex biological diversity over time (Manitoba Conservation 2000).

Based on a landscape approach addressed to meeting conservation goals, protected areas must represent 'enduring features' of the landscape as the primary elements of ecological diversity (Kavanagh *et al.* 1995, p. 4). To adequately represent the biological diversity of each natural region, examples of every region's enduring features must be included in protected areas. The identification and mapping of enduring features is the primary basis upon which WWF Canada assesses progress towards the Endangered Spaces objectives.

¹² This is a national, non-profit organization with a mission to facilitate and assist Canadians with the establishment and management of a comprehensive network of protected areas (<http://www.ccea.org>).

The identification of enduring features at a 1: 500,000 to 1: 1 000,000 scale has generally been adopted as appropriate for regional analysis. This scale provides a coarse filter for the identification of gaps in existing systems of protected areas (Watkins and Hernandez 1996). As Kavanagh *et al.* (1995) explains the “unrepresented enduring features are the ‘gaps’ in the system” (p. 4). The gap analysis is an assessment of the ‘protection status’ of ecosystem biodiversity in protected areas (WWF Canada n.d.). An overlay of existing protected areas is placed over the mapped units to reveal gaps (Kavanagh *et al.* 1995, p. 4). WWF Canada bases the evaluation of the progress in land protection with respect to each province and territory on the ‘enduring features and gap analysis’ methodology.

The Aboriginal communities are not employing the ‘enduring features and gap analysis’ methodology but preferring the traditional territory and traditional land-use practices’ approach, including fur blocks, traplines, and special and sacred places. Specific information about sacred sites is most often not available to the technical staff of provincial offices. Normally information like that does not enter into evaluation processes. In the case of the Chitek Lake Protected Area, the archaeological survey has confirmed sacred and cultural sites (Petch 1998b). This information has been made available to the Manitoba Parks Branch and WWF Manitoba to add critical data to the information base. Manitoba Parks Branch and WWF Manitoba have been asked to treat the information with respect and confidentiality and not to make it available to the general public. Both institutions agreed to this request. A methodology to classify and evaluate Aboriginal landscape features needs to be developed and incorporated in the selection criteria.

3.8 Evaluation of Manitoba's Protected Areas Initiative

The next step was to set up a system to judge how well protected areas represented the enduring features found within each of the natural regions (WWF Canada 2000). A four-level ranking system was adopted which had been proposed by the WWF Endangered Spaces Campaign for enduring features: 'not captured, partially captured, moderately captured and adequately captured' (WWF Canada 1995; Manitoba Natural Resources 1996). Each enduring feature was to be representatively protected. The assessment of each region was based on the protected areas grid for both enduring features and natural regions. Through representation on maps, progress could be seen and gaps in representation identified in the representation template. This system helped to recognize where new protected areas should be filled in (WWF Canada 2000, p. 4-5). In 1989, at the beginning of the Endangered Spaces Campaign, 66 natural regions were moderately represented. By 2000, the number had increased to 132 natural regions across Canada out of a total of 486 natural regions (WWF Canada 2000, p. 23). In Manitoba, at the beginning of the campaign, one natural region was moderately represented, out of eighteen natural regions. The number increased to five natural regions adequately or moderately represented the end of the campaign (WWF Canada 2000, p. 22-23).

In the WWF Canada assessment for 1997, the level of ecological representation in protected areas with respect to terrestrial natural regions in Manitoba was rated thus: no regions were adequately captured, four regions moderately, eight partially, and six marginally or not at all (WWF Canada 1997a). For any natural region in Canada to be 'adequately' represented, samples of all ecological features must be captured in protected lands, the network of protected areas must meet the needs of widely-ranging species, and must sustain natural processes characteristic of that natural region (WWF Canada 1998). In 1998, the level of representation remained the same for every category (WWF Canada 1998). In 1999, the level of representation changed, with five (previously four) regions

moderately captured, and five (previously six) marginally or not at all. The other two categories remained the same: no regions were adequately captured and eight partially. Region 5b changed from marginally or not at all to partially captured, due to the Chitek Lake Interim Protected Area, and region 4c progressed from partially to moderately captured due to creation of the Poplar River Interim Protected Area. Region 5b is the Interlake Plain of the Manitoba Lowlands. The Chitek Lake area is part of this region. Region 4c is the Lac Seul Upland of the Precambrian Forest. These are areas of the natural region classification of Manitoba (<http://www.gov.mb.ca.conservation>).

In 1997, Manitoba recorded the greatest increase in protection-oriented activity of all provinces and territories, and was assigned an overall grade of B+, the best given. For the years 1995 and 1996, Manitoba had scored C- and D- grades respectively (WWF Canada 1995 and 1996); the B+ for 1997 was granted because of increased protection standards in a number of provincial parks and in ten wildlife management areas, thus excluding industrial development. In addition, the Province established two ecological reserves, released a '1996-98 Action Plan for a Network of Protected Areas,' adopted ecological criteria to assess representation, withdrew Crown mining rights on parts of the Tolstoi Tall Grass Prairie Preserve in southern Manitoba, and established the Wapusk National Park Reserve in April 1996 (WWF 1997a and b). In 1998, Manitoba earned a C grade for its wilderness protection efforts. During the year, public consultation regarding over 35 potential protected areas was initiated. Several wildlife management areas were excluded from development activity. However, no new protected areas were actually designated.

For 1999, Manitoba was assigned a B- grade, primarily for its efforts to protect natural areas. Initiatives such as the protection of some 900,000 hectares with the establishment of the 'Chitek Lake and Poplar River/Nanowin River Interim Protected Areas,' the upgrading of regulations and protection standards, and discussions with industry, raised the grade from C to B- (WWF Canada 1999).

For 2000, more than 50 areas were under review for protection, with consultations on-going. In April 2000, three new park reserves were created at Hudwin Lake, Fisher Bay and Birch Island. Twenty-one additional wildlife management areas / units were protected. As a result, by mid 2000, 8.5 percent of the province was protected and a B grade was assigned to Manitoba for its efforts to create protected areas. It was the highest mark given in Canada for the year 2000 at the end of the Endangered Spaces Campaign (WWF Manitoba 2000). The government of Manitoba renewed its 'Action Plan for a Network of Protected Area' and extended the agreement with First Nations for establishment of protected areas (Manitoba Conservation 2000). Overall, Manitoba (8.61 percent) ranked fifth behind British Columbia (11.4 percent), Yukon (10.38 percent), Alberta (9.99 percent), and Ontario (8.74 percent) after the 10-year campaign (WWF Manitoba 2000).

For 2001, Manitoba received a C- for its efforts to establish and maintain protected areas (CNF Manitoba 2001). Since the Endangered Spaces Campaign had ended and WWF Canada did not renew or replace it with something similar, the Canadian Nature Federation (CNF) took over the grading system using the same standards and criteria as the WWF Canada Endangered Spaces Campaign. Determinations of protected areas have slowed, while development intentions were speeding up in Manitoba's forest regions. For 2001, 130 sites were under review for protected status. Only four new small park reserves were protected in 2001 (CNF Manitoba 2001).

In 2002, Manitoba was assigned a D grade for not acting on its protected areas commitments (CNF Manitoba 2002). Staff resources, technical services, and delivery on the Action Plan continue to falter in the Department of Conservation. The capacity to maintain government and consultation services for the establishment of new protected areas has not been renewed. The government of Manitoba did not staff the Parks Branch adequately to replace and enlarge staff to fulfill its own Action Plan and protected areas

commitments. There has been no increase in representation of Manitoba's natural regions since 2000 (CNF Manitoba 2002). The rate of development decisions has increased, while new protected areas designation has almost stopped. Community consent from the Sayisi Dene resulted in permanent protection for the Caribou River Park reserve. This was the first interim park reserve to be assigned permanent protection (CNF Manitoba 2002). Only one small new park reserve was established and one small park in southwestern Manitoba based on a partnership between Nature Conservancy Canada and a private donor. Some wildlife management areas were upgraded to protected status.

In 2003, Manitoba was assigned a D- grade for the lack of progress in establishing new protected areas (CNF Manitoba 2003). Over 100 areas in the province are under review for interim protected status. Provincial staff, budget allocation, and technical capacity have diminished since the end of the Endangered Spaces Campaign in June 2000. The First Nations MOU continued (CNF Manitoba 2003). Park reserves protected in 1997 (such as the Chitek Lake Park Reserve) await permanent protection (CNF Manitoba 2002).

In 2004, Manitoba received a C- grade for some progress being made in committing to the protected areas program. The Chitek Lake Park Reserve was extended from September 30, 2004 to September 29, 2009. Skownan First Nation requested this extension. Interim protection for the Poplar River / Nanowin Rivers Park Reserve was also extended until 2009 (CNF Manitoba 2004). A new 'Memorandum of Understanding' (MOU) between Manitoba and Canada to establish a new national park in Manitoba's Interlake region was signed. Two small new protected areas were established (CNF Manitoba 2004).

3.9 Summary of Chapter Three

This chapter illustrates that land protection initiatives are essential for landscape and species protection worldwide. Land protection programs are an important part of sustainable development. In the history of parks in Canada, Aboriginal people were excluded from the establishment processes and any further use of these lands. This led to distrust toward government and dislike of the establishment of new protected areas. There is a large difference in view about protected lands between environmentalist and Aboriginal peoples. Aboriginal people see themselves as part of the environment whereas many environmentalists view 'pristine' nature without humans. Recent research suggests that Aboriginal land use over thousands of years has created these 'natural' environments. Slowly, Government and conservation agencies have started to shift their views in regards to Aboriginal land-use in protected areas. In recent years, especially in northern areas, land claims are forcing governments to take on a different approach. Co-management boards have been established. They allow Aboriginal participation in land selection and management of protected areas. Aboriginal peoples demand that Aboriginal and Treaty rights must be recognized in newly protected areas. Only after this was guaranteed by the Province of Manitoba for the establishment of new protected areas, Skownan First Nation agreed to participate in the program. Aboriginal and Treaty rights are recognized in the Chitek Lake Interim Protected Area.

Manitoba took a leadership role in the Endangered Spaces Campaign (initiated by WWF Canada). The province created an 'Action Plan for Protected Areas' that allowed First Nations to participate. A major achievement was the signing of a 'Memorandum of Understanding' (MOU) between the Manitoba Government and First Nations organizations. The MOU initiated a cooperative effort toward the establishment of protected areas. Skownan First Nation was the first Native community to participate in the provincial protected areas program.

In 1998, an intensive provincial consultation process with First Nations started.

However, the provincial initiative was under-funded, understaffed and largely ineffective to deal with sixty-four First Nation communities in Manitoba. The task had been underestimated. A large-scale resistance to the program was encountered early on from many northern First Nations that were dealing with land claim settlements and land selections.

The Endangered Spaces Campaign ended in June 2000. Canada fell short of its 12 percent goal. With the ending of this campaign the process of land protection has slowed down across Canada. Aboriginal and industrial interests make land selection and establishment of protected areas increasingly complex and difficult. However, Manitoba did not end its commitment to the establishment of protected areas. In the spring of 2000, the province extended its pledge to the protected areas initiative to continue with the created on new protected areas (<http://manitobawildlands.org>).

With the completion of this chapter the second research objective was accomplished. The history of First Nation participation in protected areas establishment processes; the assessment the endangered spaces campaign and Manitoba's Protected Areas Program were evaluated. Based on this evaluation, Skownan First Nation decided to participate in the provincial protected areas initiative. The First Nation saw a mechanism for land and species protection from logging developments. Land protection became an important tool for Skownan in an effort to officially establish Aboriginal and Treaty rights in the protected area. It provided a window of opportunity for the First Nation to continue implementing its wildlife development initiatives. Through this process Skownan First Nation was given an opportunity to reaffirm its stewardship of the Chitek Lake area. Land protection for economic development with wildlife population is fundamental to the Skownan Model. The First Nation assigned the researcher to continue with the evaluation and facilitation of the establishment of the Chitek Lake Interim Protected Area. The researcher worked as an advocate for Skownan and became part of the research process and model.

The next chapter explains the community-based research approach with three different research methodologies. Community-based research methodologies are essential when working with Aboriginal communities. The methodologies are an important component of the research process and the model.

Chapter IV

4.1 Introduction to Methodology and Methods

The methodologies that acknowledge the views and values of a community are most significant and effective in working with Aboriginal communities (Guyette 1983; Bopp and Bopp 1985; Colorado 1988; Hoare *et al.* 1993; Reimer 1993; Ward 1996; Simpson 1999; Wuttunee 2000). As De Loë (2003) explains "... it is increasingly understood that resource- and environmental management initiatives that fail to include citizens and communities in a meaningful way are unlikely to be successful" (p. 136). Methodology for this research was an important aspect of working with Skownan First Nation. It forms a significant part of the Skownan Model. Since working with communities takes time, methodology becomes an integral part of the research process.

The research for this dissertation was conducted within a community-based research approach. Methodologies comprise community-based (CB), community participation (CP) research and participatory action research (PAR). Research methods involved group and individual discussions, interviews, and direct observation.

4.2 Methodologies

A community-based strategy presents an alternative to contemporary social science research approaches. In the 1970s and 1980s, research focused on community needs developed as a reaction to the failure of 'top-down' foreign aid projects in developing countries (Whyte 1991; Reimer 1993; Hondagneu-Sotelo 1993).

Community-based strategies respect human interaction and community aspirations. When local participation occurs as part of systematic inquiry, it reveals a complex reality (St. Denis 1989; Reimer 1993; Ward 1996; Wuttunee 2000). A community-based research approach suggests a way in which communities with limited socio-political power can use research to support their struggle for self-determination by gaining control

of information that can influence the decision-making process (Hall 1979; Guyette 1983; Bopp and Bopp 1985; Ward 1996; Wuttunee 2000). A number of researchers have addressed the importance of conducting research that serves to advance the interests of Aboriginal peoples (Castellano 1986; Ryan and Robinson 1990; St. Denis 1992; Ward 1996; Simpson 1999; Wuttunee 2000; Usher 2003). A community-based research approach presents research “*for* the people rather than *about* or *on* people” (St. Denis 1989, p. 31). A high level of community involvement gives greater insights into the fabric of Aboriginal communities. Involvement of local communities in local environmental and resource use developments is essential for sustainable development (Brundtland 1987; United Nations 1992). Agenda 21 calls for the direct involvement of indigenous people and their communities to improve and strengthen management for land and natural resources (United Nations 1992, p. 227).

Community-based research approaches include a variety of methodologies: action research, participatory research, participatory action research; and collaborative research (Brown and Tandon 1983; Stromquist 1994; Hall 1981; Ryan and Robinson 1990; Reimer 1993; Lapadat and Janzen 1994; Castelden 1992; Legat 1994; Ward 1996).

Action research developed during the 1940s. Its main goal in research has been improving the social structure within organizations (Brown and Tandon 1983, p. 277-278). Action research is aligned with organizational structures whereas participatory research relates to people (Brown and Tandon 1983, p. 278-279). Participatory research emerged with the social justice movements in the developing world to help oppressed people (Elden 1981; Hall 1981; Whyte 1991). Both methodologies are designed to generate knowledge, solve problems and transform social structure into more equitable systems for people (Brown and Tandon 1983; Castleden 1992; Ward 1996).

From these two streams of methodology a third developed: participatory action research (PAR). It bridges action and participatory methodologies “*stressing the importance of transformative results as well as the process in research*” (Ward 1996, p.

12). Maguire (1987) identifies three main objectives of PAR:

- 1) to develop critical consciousness of both researcher(s) and participants in the research process;
- 2) to improve the lives of participants in the research process; and
- 3) to transform fundamental social structures and relationships (p. 29).

The two PAR projects (Appreciative Inquiry and Vision Seekers) were conducted with these objectives in mind.

The 'community participation research' (CP) is also a method of community-based research. It involves an external researcher and a small group of local people working on a specific short-term research project. CP research projects usually run from three to six months (Ryan and Robinson 1996, p. 10). This methodology is different from PAR in that it operates on a smaller scale and is less time and funding intensive than PAR. It also involves less training, involvement and responsibility for community members. The archaeological survey was conducted with this methodology.

The collaborative research methodologies – another variation for the community-based approaches – “stress the interrelationship between the researcher and participants to a greater level than do participatory and action approaches” (Ward 1996, p. 12). In a collaborative or co-operative research process external researcher(s) and community member(s) conduct research together bringing different knowledge, perspectives and interests to the research inquiry (Castleden 1992, p. 43). Aspects of this methodology were present in the two PAR projects.

Boundaries are often not well defined between the different streams of community-based methodologies. Hybrid methodologies develop with individual research projects as was the case in this study. The above-described methodological streams flow into the formulation of the community-based research methodology.

These methodologies provide alternative solutions to the contemporary positivist methodological frameworks “where local people have been viewed as ‘subjects’ of

scientific inquiry” (Ward 1996, p. 4). The alternative methodologies are part of the postpositive development. Post-positivism tries to compensate for the inadequacies of the positivist assumption. Postpositive methodologies dominate current research in areas such as human geography, for example, without necessarily being emancipatory. However, in some applications they may be. The aim of emancipatory social science is to understand the unequal distribution of power and resources in order “to help create a more equal world” (Lather 1986, p. 258). This research is part of the emancipation process of Skownan First Nation.

As it was for this research, human interaction and self-awareness are critical to this approach (St. Denis 1989; Ward 1996; Simpson 1999; Wuttunee 2000). It is a dynamic process, which can never be totally pre-determined (Brown and Kaplan 1981; Ward 1996; Hondagneu-Sotelo 1993). At the beginning of this research, the possibility of a protected status of the larger Chitek Lake Area was a remote possibility.

The following section examines community-based research methodology in more detail to distinguish it from participatory action research. Both methodologies are sub-categories of the overall community-based research approach.

4.3 Community-Based Research Methodology (CB)

The community-based research methodology is based on interaction with the governing body of a community without the in-depth involvement of a large number of community members, as is the case with PAR. In a First Nation community, the researcher works under general guidance of Chief and Council. The external researcher is an active participant in the research question identification and problem solving and solution finding process. The research questions develop over time with the on-going learning curve. Both parties may initiate research ambitions. In the case of the traditional land-use study (Stock 1996), Chief and Council inquired if the researcher

might be interested in conducting a traditional land-use study. The request for this research came from the concerns and needs of action for Skownan First Nation to deal with the industrial development proposals for the Skownan Resource Area. After the completion of preliminary research to test the validity of such an undertaking, Chief and Council and the researcher decided to carry out the traditional land-use study. The researcher was at liberty to set up the research design, process and analysis. The community-based research methodology requires preliminary research in order to test the grounds for larger research projects. In the case of this study preliminary research included the evaluation of the provincial protected lands program in order to determine if this avenue could provide an alternative path to the land and natural resources issues of the larger Chitek Lake Area. This time it was the researcher who initiated the research question. The same applies for the archaeological survey and the wood bison model. However, these research questions developed from the larger inquiry of Skownan First Nation on how to find alternative solutions to the land and natural resources issues of its traditional territory. The researcher reported on-going research findings to chief and council on a regular base. The provided information was incorporated in the decision-making process of chief and council in their efforts to work on realistic solutions. The researcher was not involved on the level of elder consultation and community meetings. However, since chief and council worked through these channels, the whole community was involved in the community-based research methodology. Important decisions are made by consensus in Aboriginal communities. For example, the final decision to agree to the establishment of Chitek Lake Interim Protected Area was reached by community consensus after the provincial protected lands program had been carefully explained to the community. The community evaluated and discussed pros and cons of the establishment of a protected area, and then chief and council consulted with staff of the Provincial Parks Branch.

In the community-based research methodology, the researcher is more in control

of the research questions and research design than is the case in PAR and collaborative research. For this part of the research process, a PAR approach would have been too time-consuming and too slow in order to meet timelines in regard to the environmental hearings in The Pas and Winnipeg in 1997 and the provincial protected areas program. Each Aboriginal community in Canada has its own ways of working with researchers and the researcher has to adapt to the local conditions. Skownan First Nation has worked in this way with several researchers (Payne 1987; Morgan 1987; Berezanski 1986; Haugh 1994; Stock 1996; Petch 1998b). The community-based research methodology has developed through and with Skownan First Nation and proven to be successful in problem solving and solution finding research processes of local issues.

Based on the interaction between the researcher, the governing decision-making body, knowledgeable community members and consultation of elders, insight, action and eventual solution will emerge. Through community meetings the entire population is addressed, informed and involved in the decision-making process.

In the community-based research methodology, the researcher works with knowledgeable individuals in order to obtain specific information that facilitates research design and implementation. Specific interviews were conducted in preparation for the archaeological survey and the potential range expansion of the Chitek Lake Wood Bison Herd. With the additional local information the researcher can fine-tune the research question, design and analysis.

Possible disadvantages of the community-based research methodology are that a community, bringing the research to a premature conclusion, could reject the research undertakings and its recommendations. Research with Aboriginal communities carries that risk. Another disadvantage of this methodology is that the researcher may be too fast in formulating ideas for community members to understand what is happening. This took place to a certain degree with the establishment of the Chitek Lake Interim Protected Area. It was partly compensated for in the two PAR processes where community

members were given ample time to discuss the Chitek Lake Interim Protected Area in detail. The researcher may ignore a section of the population, which has different views from Chief and Council and perhaps is not in favor of the research. Again this was compensated with the PAR projects where every member was invited to participate. The researcher may favor people from the community who are more open and easier to talk to and may be misled by opinion where a certain section of the population brings forth only their issues. It was not possible to talk directly to community members who only spoke the native language. Again, this was counteracted through the PAR projects since most of the trained interviewers from the community understood and / or spoke Ojibwa. In order to gain a more in-depth understanding of the views and values of Skownan First Nation the community-based research methodology was too limited to effectively achieve the sixth objective: to analyze Skownan First Nation values and visions regarding the Chitek Lake Protected Area. Instead the participatory action research methodology (PAR) was selected for application.

4.4 Participatory Action Research (PAR) Methodology

Often Aboriginal communities initiate PAR projects to address local issues for decision-making and solution finding processes (Ryan and Robinson 1996, p. 8). However, in the case of Skownan First Nation, the community was approached to take part in two PAR projects by outside institutions and facilitators. After an evaluation by the community of these requests, Skownan First Nation decided to participate in both since they provided useful platforms to further the community's interest in land and natural resources issues and community development. The Provincial government wanted to gain insight into Skownan's strong opposition to the proposed logging and road construction plans and its firm position on alternative land and natural resources developments. An understanding of these issues became important to the provincial

government since more opposition to large-scale logging and road development started to surface on the eastside of Lake Winnipeg with the expansion plans of the pulp and paper mill Abitibi-Price in Pine Falls. After failed efforts to involve one of the First Nations communities on the east side of Lake Winnipeg in such an inquiry, Skownan First Nation was asked to participate with IISD. The project facilitators of IISD presented the format of an 'Appreciative Inquiry Methodology Project' which was turned into a full PAR application.

Skownan First Nation was also approached by staff from West Region Child and Family Services with a 'Vision Seekers Process.' It was set-up as an open process in the PAR format where the community was asked to define the process. Again Skownan First Nation went through a process of proposal evaluation and decided to take on the opportunity.

For both PAR projects, local research teams were formed and involved in the research training, design, data collection and analysis and recommendations. Selected community members were specifically trained in interview skills for data collection as well as data analysis. In PAR, study participants play an important role in designing the research process and outcome (Ryan and Robinson 1990 and 1996; Hondagneu-Sotelo 1993). PAR projects require time, resources, funding, organizational skills and a commitment to accept that it is not always possible to predict the outcome. The researcher(s) must be committed to understanding and controlling his / her biases, thus enabling and encouraging local participants to define and direct the research effort (Ryan and Robinson 1990 and 1996; Hondagneu-Sotelo 1993). PAR research approaches may be useful for decision-making processes that can lead to community empowerment and betterment. This is an important factor to Aboriginal communities (Ryan and Robinson 1996; Ward 1996; Wuttunee 2000).

Local participants influence the research outcome by their individual perceptions of their situation. The biases that appear through PAR projects are largely those of the

community (Ryan and Robinson 1996, p. 9). The researcher must be flexible and accept changes in focus and activities of the research process. Sometimes adjustments to the structure and timing of the research process are required accordingly instead of insisting on a preplanned direction. The research process is a permanent sequence of analysis, statement, action, and reflection analysis (Cain 1977; Bollens and Marshall 1973). These PAR research issues were a reality with both projects. On-going adjustments were made throughout the year for each project.

As Hondagneu-Sotelo (1993) points out, a risk of PAR is that it can place the selected community members in “an asymmetrical relationship” (p. 58) with other community members depending on local political divisions. These members could gain too much power and influence in the community due to their involvement in the research. This was a sensitive issue with Skownan First Nation due to political and religious divisions. The research team made sure to allow for a wide range of interview participation throughout the different family clans. However, it is evident that some of the local research team members benefited afterwards with being chosen to local employment positions due to their effort and involvement in the projects.

PAR projects are more expensive than the community-based research methodology. Funding for travel is required as well as for honorariums to attend meetings, training time, work sessions, interviews, gifts for the interviewees, Elder honoraria and childcare. Travel within a First Nation community can easily amount to between ten to twenty kilometers each way for participants to attend meetings, as it is the case for Skownan First Nation. Researchers have to allow for these additional costs in funding applications. This was provided for in both PAR projects.

Hondagneu-Sotelo (1993) explains that PAR typically involves some degree of “consciousness-raising on the part of community members” (p. 61) about their situation. It was anticipated that PAR will induce a solution-oriented process. The consciousness-raising process occurred through the lengthy interview processes that allowed much time

for communication among community members, the community meetings, and informal communication on an on-going base. The PAR team as well as many community members identified this as a significant benefit to the community. The consciousness was particularly raised in the areas of the greater need for education as well as teaching children about traditional values and traditional land use activities. As a result of both PAR projects the educators of the community are involved in setting up programming to expand the school curriculum in contemporary western as well as traditional Aboriginal teachings. The main focus is on the local history, the wood bison project, and Chitek Lake. In conclusion, both PAR projects were appropriate methodology for gaining insight in the community's values and visions with regard to Chitek Lake. Consciousness-raising across the community was achieved.

4.5 Archaeological Survey

The archaeological survey was a tool used in order to gain access to archaeological and cultural sites in the Chitek Lake Area. The archaeological survey was conducted using the 'community participation research' (CP) methodology. The researcher took the initiative in organizing the archaeological survey. The archaeologist and this researcher implemented research design and research questions. Chief and council decided that the research was needed in order to advance the community's interests in the Chitek Lake Area and approved the project. The establishment of archaeological records on unoccupied Crown land is essential for Aboriginal communities in Canada to prove Aboriginal occupancy of these lands. Archaeological data ties in with the legal aspects Aboriginal and treaty rights. Archaeological surveys are an important methodology for Aboriginal communities across Canada (*Hamel of Baker Lake et al. v. Minister of Indian Affairs and Northern Development et al.* 1979; Freeman 1979; *Delgamuukw v. B.C.* 1997). The archaeological survey is a component of

the Skownan Model.

A professional archaeologist was required in order to obtain an archaeological license from the province for the heritage funding. The researcher based on the good reputation recommended the archaeologist to chief and council. They then officially hired the archaeologist and the researcher. Two youths from the community and one elder were hired for the archaeological survey. The elder gave guidance to find specific locations; the youths were part of the survey team.

Preliminary predictions of potential archaeological sites in preparation of the survey were made with the help of three personal interviews of knowledgeable land-users, and with air photo and topographic map interpretation. The traditional land-use study (Stock 1996) was evaluated for deriving predictive sites. Based on the high water levels in recent years the survey was considered to be challenging for travel, mobility in the area and findings ahead of time. Many potential shoreline sites were underwater.

The Chitek Lake archaeological survey was an 'exploration' or 'reconnaissance' ground survey. This is the first level of archaeological exploration into territory that had not been surveyed by archaeologists before. An exploration survey involves a fairly large area, and may provide information on the locations and density of archaeological sites¹ and artifacts (Trigger 1968 and 1989; Dyck 1983a and b; Petch 1998b and c). A specific site-unit evaluation with definite references to time and space was not possible. The site-unit approach is dependent on the existence of one or more historical documents, which can be related to a specific site or component of a site (Mason 1976; Petch 1998c). There were no fur trade posts in the larger Chitek Lake area. Uncontrolled² shovel tests were conducted.

¹ An archaeological site is a locality at which there is evidence for past human activity. Sites that were occupied for a long time generally produce a greater amount of archaeological evidence than sites used only for a short time (Dyck 1983b, p. 5).

² It means surface collection without established datum (Petch 1998c, *pers. com.*). Controlled shovel tests are surface collections with established geographical or arbitrary datum (Petch 1998c, *pers. com.*).

The findings of the survey are described in chapter five. The archaeological survey was an important step in terms of validating the long-term presence of Aboriginal people in the Chitek Lake Area and played an important role in the establishment of the Chitek Lake Interim Protected Area.

4.6 Methods

Qualitative methods pre-dominate in this research. They involve group and individual discussions, interviews, and personal observations and were successfully applied in previous research projects (Payne 1987; Haugh 1994; Stock 1996). Qualitative methods permit the evaluator to study specific issues in depth. This typically produces a wealth of detailed data with respect to small numbers of informants (Patton 1987; Stock 1996). Only the three most knowledgeable land-users were interviewed in regard to archaeological and cultural sites and the potential wood bison range. These interviews revealed sufficient information in preparation for the archeological survey and the understanding of the potential wood bison range expansion.

Traditional knowledge is oral knowledge. The process by which such information is best collected is through group and individual discussions and interviews (Cruishank 1990 and 1996; Robinson *et. al.* 1994). In the context of this dissertation, discussions, interviews, and personal observations were deemed to be the most effective. Personal interaction is crucial to success in research involving First Nations communities (Simpson 1999; Wuttunee 2000). These kinds of methods are typically applied with the community-based research approach and have been proven to work well in Aboriginal communities (St. Denis 1989; Stock 1996; Ward 1996).

4.7 Advantages and Limitations of the Community-Based Research Approach

The chosen methodology and methods are consistent with contemporary practices in research involving Aboriginal communities, both in Canada and internationally. While the researcher attempted to approach the research in an objective manner, the personal involvement with the community and the personal experience on the land account for a degree of subjectivity and bias. In the Aboriginal worldview, each and every person is interconnected with one's environment in a different way. One cannot stand apart from one's world and this experience will influence the research. Simpson (1999) has portrayed such a close relationship between individuals and the land.

However well intentioned a community-based research approach may be, the possibility exists that such research projects may not be readily welcomed. They may not be seen as a possible solution, but as a potential source of exploitation. Researchers can be treated with lack of trust and suspicion (Hondagneu-Sotelo 1993, p. 63). In January 2000, the community team members of the 'Appreciative Inquiry Methodology Project' were subject to such allegations in the first community meeting. The need for yet another research project was questioned by attending community members. With time the IISD project became increasingly accepted. Half a year later, the 'Visions Seekers Process' was readily accepted based on the previous PAR experience.

Hondagneu-Sotelo (1993) points out that one of the fundamental limitations of community-based research approaches is that most often they only succeed in consciousness raising of a community "but not in the altering of structures of established institutions" (p. 64) to facilitate the transformation of existing power structures and economic inequities. Individual research projects are too short to bring forth such fundamental changes. Researchers most often leave the community once the data are collected (Hondagneu-Sotelo 1993, p. 64). With both PAR processes the first PAR objective as outlined by Maquire (1987) was achieved to develop critical consciousness raising for both the researcher(s) and the participants (p. 29). In a sense, the

consciousness of the whole community was raised due to the in-depth interview process and group discussions. The second objective “to improve the lives of participants” (Maquire 1987, p. 29) was realized. The local team members were paid for one year from IISD and had a valuable learning experience. For some the experience led to full employment afterwards. At the end of the project the participants concluded that the ‘Appreciative Inquire Methodology’ was an important step in the community development and planning process for the future. As of 2005, the participants from the community as well as many community members talk highly about the IISD project.

The third objective “to transform fundamental social structures and relationships” was met in different ways. For the community it led to a strengthening of relationship connections among the different generations due to the story telling format of the interviews. Children were always invited to join the interviews with their parents and grandparents. Sometimes entire families came together. In some cases, close ties were formed between elders and youth for the first time. That in itself is a strengthening and transformation of social structures within the community. There is an underlying current of better social relationships among many community members based on the two PAR projects.

The community as a whole stood firm to its decisions regarding the Chitek Lake Area. With this a new relationship with the Manitoba Parks Branch has evolved which did not exist before. Through the ‘Visions Seekers Process’ the people of Skownan expressed a strong desire have an ‘Adult Education Center’ in order to give adults an opportunity to improve on schooling. The long-term goal is to get community members educated so that they can organize their own research projects and carry out the necessary professional work for Chitek Lake themselves. The Vision Seekers Coordinator organized the creation of the ‘Adult Education Center’ on reserve. An architectural expansion was made to the new ‘Health Center’ to allow for the building of a classroom

facility. The establishment of an Adult Education Center on reserve is a major structural transformation for a First Nation community.

In the case of Skownan First Nation, a succession of research projects starting with the Waterhen Wood Bison Project (Payne 1987) has proven that changes are possible to benefit a small-marginalized community over time. The Waterhen Wood Bison Project was a joint wildlife management project with provincial and federal government departments. Other studies that involved Skownan First Nation were conducted by Morgan (1987), Berezanski (1986) and Haugh (1994). The first two were technical, empirical research projects on a small-scale to resolve specific research questions directly related to the wood bison ranch. Haugh (1994) examined Skownan First Nation's role in developing co-management in Manitoba. It was one aspect in this research and not the main focus.

Once more the community decided to work in co-operation and through negotiation with the existing provincial institutions in order to achieve changes in land and natural resources allocation. Skownan First Nation has maintained the position of co-operation with government since the signing of the treaty. The establishment of the Skownan Fur Block in the 1950s jointly with the government was an important achievement for Skownan First Nation. The establishment of the Chitek Lake Interim Protected Area follows in this tradition.

It is concluded that the discussed methodologies and methods were the best available methodologies and methods for this research process, based on the literature evaluation and applications in the field. Alternative research methodologies are powerful and useful in their application with Aboriginal communities. They are essential for the process of developing alternative land and resource developments in a sustainable and Aboriginal worldview framework. The community-based research approach is part of the Skownan Model. Without the comprehensive involvement of Aboriginal communities

where they exist, true sustainable development is not possible in these areas in relation to natural resource issues (Brundtland 1987; United Nations 1992).

4.8 Summary of Chapter Four

Skownan First Nation has been involved in a number of academic research projects which promoted solution-finding and decision-making processes with alternative research methodologies (Payne 1987; Stock 1996; Petch 1998b; Rungay 2000; IISD 2000a,b,c,d and 2001a,b,c). Skownan First Nation has benefited tremendously from these community-based research approaches. They helped in the evolution of alternative sustainable land and resources development in concurrence with Skownan's Aboriginal worldview and stewardship. The main difference between the community-based (CB) and PAR methodologies is that the researcher plays a major role in the research process, design, data collection and analysis with the community-based research methodology while working under general guidance with the governing body of the community. In the two applications of PAR methodologies, several members of the community were directly involved in research design, data collection, analysis of data and recommendations.

The community-based research approach allowed Skownan First Nation to participate to a much greater extent in research than in the positivist methodologies. It provided Skownan a tool for the advancement of its own community development. It offered an opportunity for the Skownan First Nation to bring forth its concerns of the proposed land development issues for the Chitek Lake area. Community-based research allows for a two-way process. Community members learn about research and how it can be used for community development while the researcher has the opportunity to study Aboriginal lifestyles. Then the researcher is able to give back to the community in terms of presenting the research findings to the community, government and other funding

institutions to advance the cause of Aboriginal communities. In this way the researcher can function as an advocate for the community. The Chitek Lake land and resources situation is a central concern of Skownan First Nation. The community has always wanted more authority and security to protect its social-economic interests in the Skownan Resource Area. This research has facilitated some advancement for the community in this regard.

Over time several people became interested in higher levels of education and research to the point that they decided to get involved into postsecondary education. Many people of Skownan First Nation became aware that education was an attainable goal. There is a strong focus on education in this Native community based on its exposure to research and having worked with several researchers. The community-based research approach gives small communities a better trust building platform. Communities feel less threatened by researchers, academic institutions and possible negative consequences for their communities. With this the community-based research approach becomes an important component of the Skownan Model. The third research objective 'to evaluate the community-based research approach in order to apply appropriate methodology for research with the community' has been achieved.

The empirical methods of the wood bison model are explained in chapter seven. They are not part of this chapter since they are specific to wildlife modeling scenarios and not to community-based research approaches. Next chapter deals with the findings of the archaeological survey as well as some important historical events that lead to the establishment of the Waterhen reserve.

Chapter V

5.1 Introduction to Chapter Five

The first part of this chapter provides a brief archaeological overview of southern Manitoba and the larger Chitek Lake Area. The section on the archaeological past reveals a longstanding relationship between bison and early hunters in southern Manitoba. An archaeological survey was conducted to confirm and document the existence of archaeological, cultural and sacred sites. The second part of the chapter deals with an overview of the fur trade history and its relevance to Skownan First Nation. The meaning of trade is examined.

Some fundamental aspects of Canadian history have to be understood in order to comprehend Aboriginal views of traditional land-use territories, resource use and trade in the contemporary context. The Anishinaabe (Ojibwa) trace their beginnings back to the early hunting and gathering societies, “who migrated into the lands opened by the retreating glaciers ten thousand years ago” (MacDonald 1991, p. 28). Following the fur trade discussion, the chapter moves on to illuminate the early settlement and treaty making history in Manitoba which in turn led to the establishments of Treaties Number One and Two. The history of the establishment of the Waterhen reserve and the significance of continued access to the land after Treaty Number Two in 1871 is explained. This chapter illustrates the results of the third research objective.

5.2 Brief Archaeological Overview in Relationship to The Chitek Lake Area

Aboriginal peoples have been living in Manitoba for approximately the past 12,000 years. The cultural history is subdivided by archaeologists into three major periods - Early -, Middle -, and Late Pre-European-Contact (Pettipas 1984a). By about 8000 B.C. the climate became warmer and drier. The forest was replaced with grassland

in southern Manitoba. Mammoths disappeared and bison became the major food source on the plains (Pettipas 1984a and b, p. 164-166). With the retreat of the glacier, and of Lake Agassiz, groups of 'Plano' people moved into Manitoba. It is believed that the Plano people migrated from the south and/or west to southwestern Manitoba in pursuit of bison herds (Pettipas 1984a).

Due to the gradual warming trend that marked the end of the Ice Age, conditions were slightly milder around 6500 B.C. than they are today. This warmer and drier period is called 'Altithermal' (high heat) or 'Atlantic.' Its peak is estimated at approximately 5200 to 4600 B.C. (Pettipas 1984a). By approximately 5000 B.C., the glacier and Lake Agassiz had disappeared from Manitoba and the interior of North America was desert like.

The effects of drought were most heavily felt on the short-grass plains of the United States, where large areas became bare and could no longer support herds of bison. The overall area of grassland was reduced to one-quarter of its former extension (Pettipas 1984a). Large numbers of bison may have taken advantage of the semi-open regions to the north. Perhaps the herds in Wood Buffalo National Park are the remnants of a much more widespread population that extended eastward into the Canadian Shield. With the northward retreat of the bison, human populations following the bison came to occupy areas as far north as the Northwest Territories (Pettipas 1976a; Gordon 1996). Since the end of the Ice Age, bison body size has been gradually diminishing. Bison underwent evolutionary stages that brought them to their present form (Dyck 1983a). This may have been a biological response to the reduced carrying capacity of the grasslands (Pettipas 1984a).

Botanical evidence demonstrates that at its maximum extent (ca. 4500 B.C.), the grassland environment reached 150 - 200 kilometers further north (somewhere between the Porcupine Hills and The Pas) and sixty to eighty kilometers further east in Manitoba than today (Pettipas 1984a; Shay 1984, p. 103-105). A vegetation-reconstruction (based

on fossil-pollen studies) at about 6000 years ago (4000 B.C.), places the Waterhen-Chitek Lake region into a parkland/prairie environment (Shay 1984, p. 103-105). Only the very north of the Interlake region is covered by deciduous forest. Around 8,000 to 7500 years ago, the lake basins of Lakes Manitoba, Winnipegosis, Cedar Lake and the south basin of Lake Winnipeg had largely drained with the final disappearance of Lake Agassiz. It is thought that there was much more open land available in the Manitoba Lowlands than there is at the present time.

Due to isostatic¹ rebound, which was more pronounced to the north, and a cooler and wetter climate, the lakes formed again. Based on this knowledge one can hypothesize that bison and people occupied the Chitek Lake area as early as 4000 B.C. However, many pre-European-contact sites of the 'Atlantic' time are buried under the existing lakes today (Pettipas 1976b; Manitoba 1996). Bison skulls have been found sixty-two kilometers north of Gypsumville near Highway six (Lammers and Wrigley 1984, p. 140). These sites are at the latitude between the northern tip of Waterhen Lake and the south shore of Chitek Lake. The distance from Highway six of these sites across to Chitek Lake is approximately twenty kilometers. At the Tailrace Bay site near Grand Rapids – about eighty kilometers north of Chitek Lake - one bison bone was found (Mayer-Oakes 1970). One bison bone was recovered at the Duck Bay Site on the west shore of Lake Winnipegosis (Nicholson 1978). Approximately sixty kilometers to the southeast of Chitek Lake on Peonan Point – a peninsula on the north shore of Lake Manitoba – many bison bones, skulls and arrow heads could be easily gathered. Most of the bones were destroyed in the fire of 1929 (Olson 1998, *pers. com.*). None of the bison skulls and bones have been scientifically identified to what exact time period and bison

¹ Isostatic rebound is a phenomenon whereby the earth's crust, after being depressed by the weight of the glaciers during the last ice age, is slowly rising back to its pre-glacial position. The depression of the land surface was greatest in the central part of the area covered by the ice-sheets, and tapers off towards the margins (Davies *et. al.* 1962; Penner and Swedlo 1974).

species they belong. Due to the few findings and lack of excavation not enough archaeological evidence is present to make such distinctions.

Based on more and better archaeological evidence, it is known, that the lower Winnipeg River basin became a favored area for the bison hunt (Pettipas 1984a; Steinbring 1980; Buchner 1979, 1982). The people who lived in this area also made use of the forest environments at the edge of the grasslands. Small groups of bison probably sheltered in the forest during the winter months. Bison remains (*Bison occidentalis*) found at Kenora dated to approximately 3000-2800 B.C. (Pettipas 1984a).

By 3500 B.C., the drought conditions of the Altithermal had moderated, with cooling temperatures and increased precipitation and winter storms. Forests encroached southward. It is estimated that, by 3000 B.C., vegetation zones had established their present-day distribution. An increased carrying capacity of the Plains and a higher human population density has been suggested for the end of the Altithermal. In the Middle Pre-European-Contact Period, the environment changed from a grassland to a forest environment in the Waterhen-Chitek Lake area.

Bison bones are associated with the archaeological sites of the three dominant complexes in Manitoba at that time. A seasonal round of summer bison hunting in the grasslands and winter bison hunting in the adjacent Parkland and deciduous forests may have been conducted by these early hunting people in Manitoba (Pettipas 1984a).

From approximately 800 A.D. to the historic time of contact, numerous groups occupied southern Manitoba. Their presence is indicated by a wide variety of pottery wares, indicating a tremendous cultural variety due to migration, development, seasonal utilization of the region and blending of traits through social interchange (Pettipas 1984a). Some archaeologists hypothesize links of these cultures to early contact Cree and Ojibwa people in Manitoba.

The 'Blackduck' Culture (800 - 1700 A.D.) appears to have developed out of the overall 'Late Pre-European-Contact Woodland' pattern that stretched across southern

Minnesota, northern Wisconsin, Michigan and southern Ontario. This has also been called the 'Manitoba Phase' (Syms 1976). The cord-roughened pottery of the Blackduck Culture was used over a vast area. The first descriptions of the Blackduck Culture were made by Evans (1961) and Lugenbeal (1976).

Blackduck ware is considered to be the most distinctive pre-European-contact ceramic ware found in Manitoba. The motifs and decorative techniques show substantial uniformity through space and time (Carmichael 1977). Emerging at about 700-800 A.D., the Blackduck complex spread from the Upper Great Lakes to the north and west into the forests, parklands, and plains regions. It persisted until the historic period in Ontario (Syms 1976). Blackduck pottery is most frequently encountered in northwestern Ontario, southeastern Manitoba, and northern Minnesota.

Evans (1961) has suggested that the Blackduck ceramics were directly developed from the Laurel manifestations of the Middle Woodland Period, while others have argued that Laurel cannot be considered the only and most important antecedent cultural assemblage due to considerable temporal overlap of Laurel and Blackduck chronologies (Syms 1976; Tisdale 1977).

The introduction of corn to the southern Great Lakes coincides with the onset of a warmer, moist period. The forest environment retreated further north, making more land available for agriculture. The introduction of agriculture south of the Great Lakes resulted in a population increase, and a persistent threat of warfare forced hunting and gathering groups further to the northwest. By approximately 800 A.D. Blackduck people had spread into the Aspen Parkland of Manitoba and adapted themselves to the seasonal hunting of bison (Pettipas 1984a). The people used a broad spectrum of resources.

Based on archaeological evidence, the Blackduck Complex is distributed throughout southern Manitoba as far north as the Saskatchewan River and the The Pas moraine. Isolated Blackduck artifacts have been found as far north as the north shore of Southern Indian Lake, and in the York Factory area on the Hudson's Bay coast (Pettipas

1984). There is evidence of Blackduck in the southern and northern Interlake region. An important pottery site exists on the east shore of Lake Winnipegosis at Wade point, approximately twenty kilometers to the southwest of Chitek Lake. No archaeological excavations have been conducted due to its remoteness. The site was visited during a Lake Winnipegosis survey by this researcher in 1998. Pieces of Blackduck pottery can be easily found on the surface. One can hypothesize that since there were people living at present-day Wade Point, they probably explored and hunted the Waterhen Lake and Chitek Lake area. Twenty kilometers is an insignificant distance for hunting and gathering people especially during winter month. This site presents evidence that there was pre-contact human occupation in the larger Chitek Lake area, possibly Algonquian speaking ancestors of present day Ojibwa and / or Cree.

This section illustrates that a variety of Aboriginal cultures in Manitoba have developed over time. Changes in environmental conditions meant that human lifestyles, as part of the environment, also changed. Cultural remains represents the adaptation to the changing environment (Hill 1984). This process of adaptation and change has continued through early contact history to modern times.

5.3 Chitek Lake Archaeological Survey

The Chitek Lake archaeological survey was conducted from August 17 to 30, 1998. Skownan First Nation hired a professional archaeologist, a research assistant, two college students from the community and a traditional land-user / elder. The elder provided important information about the nature of the area and the locations of present and former resource use sites. The research assistant (this researcher) supported the archaeologist with the organization, and implementation of the survey, the finding of sites, and provided expertise with regard to traditional land-use activities within the area.

Consequently, a deeper level of understanding of the Chitek Lake area and the importance of this land to the people of Skownan First Nation was gained.

Archaeological research in the forest and tundra zones of Manitoba has been sporadic, site-specific and limited (Nash 1975). Archaeological investigations have been sporadic due to the isolation of locations, short field seasons and high transportation costs. Most studies occur “near large bodies of water on which floatplanes can land” (Petch 1998c, p. 31). Preservation of organic material is almost non-existent in northern environments. Archaeologists have to work with inorganic evidence. Occasionally, animal bones are found. Conclusions are drawn from limited excavations and ethnographic analogy (Petch 1998c, p. 32).

All of the above-mentioned conditions apply to the Chitek Lake area. A major challenge in the Chitek Lake area is the thick bush and swamp environment that covers the land (Petch 1998b, p. 7). As Petch (1998c) explains “this obscures visibility of potential archaeological sites, making site identification difficult” (p. 32).

In the case of Chitek Lake, the survey was conducted mostly along the shore-line, on two small islands and on several peninsulas. A small portion of the shoreline was not surveyed because of impassable swampy conditions. Due to thick bush conditions, and inundation back of the beach ridge, the crew was generally unable to penetrate farther than 100 to 200 meters from the shore. Only on the west side of the lake was it possible to walk further inland to dry ridges (about one kilometer).

The archaeological survey documented and verified evidence of archaeological, cultural and sacred sites as well as present land-use sites at Chitek Lake. A total of seventeen hitherto undiscovered new archaeological sites were identified during the Chitek Lake Archaeological Survey (Petch 1998b, p. 31-41). Some of the sites are of sacred and spiritual value to the people of Skownan First Nation and are not revealed in this dissertation. Only a few stone tools were discovered: one bone smashing stone,

several chert cores² and flakes³, and two other culturally modified stones. It was not possible to classify these artifacts to specific time periods. The findings are limited and an archaeological excavation site, for time referencing, needs to be established.

The number of artifacts and tools appear to be limited to hunting activities. Activity areas tend to be small, indicating a high degree of mobility. Elder Marion (1998, *pers. com.*) expressed this view before the survey, that the Chitek Lake area was never a place of settlement but rather a place for hunting. Due to the difficulty of the terrain, hunters would carry the least amount of possessions possible. One cannot expect to find much in terms of items left behind from hunting activities (Marion 1998, *pers. com.*). The archaeological record for Manitoba's Interlake region is sparse given the vastness of this area. The existing data depict resource users predominantly as hunters, trappers, fishermen and gatherers. In archaeological (Petch 1998b), historical (Stock 1992) and contemporary (Stock 1996) terms, hunting, fishing, trapping and gathering activities have been prominent for the Chitek Lake area.

However, the first archaeological survey became an important project for the community, to record and document special sites and areas. The archaeological information was important to the negotiations that led to the establishment of a protected area at Chitek Lake. Based on the literature review and the Chitek Lake archaeological survey it is evident that Aboriginal occupation of the Chitek Lake area is thousands of years old. Further archaeological surveys especially to the west of Chitek Lake on the higher and drier ridges and the excavation of the Wade Point site are needed to gain a clearer picture of the archaeological record of the Chitek Lake area.

² "A dense sedimentary rock consisting of extremely fine, interlocking crystals of quartz, usually occurring as nodules or beds within carbonates like limestone" (Huck and Whiteway 1998, p. 285). It is excellent material for arrowheads. The part of the chert that is left after the arrowhead has been made is called a core.

³ Waste chips or flakes of stone that were produced in the course of tool manufacturing (Gibson 1976).

5.4 Brief Historical Overview of the Fur Trade in Reference to Ojibwa Populations in Manitoba and the Chitek Lake Area

Warfare and disease changed the human landscape remarkably in the period after contact with Europeans (Ray 1996; Hackett 2001). Population movements were fluid and unpredictable. Aboriginal groups disappeared, dissolved and re-grouped throughout the centuries (Hackett 2001, p. 244). Many of the original tribal and group designations have been lost (Greenberg and Morrison 1982; p. 77). The records of early traders and missionaries are sporadic and incomplete. Misidentification is a common problem in archival records (Greenberg and Morrison 1982, p. 76-81). Clear identification of early Ojibwa groups in Manitoba is not possible.

Three theories exist as to the origin of the Anishinaabe in Manitoba. Whereas it is generally accepted that Anishinaabe people moved into the western portion of what is today recognized as their territory, following the arrival of European traders, in the late eighteenth century, some scholars are of the view that the Anishinaabe were present in the area a considerable time before that at the end of the 17th / beginning of the 18th century⁴ (Peers 1988). Others go as far as establishing pre-contact links based on archaeological records (Petch 1998a, *pers. com.*).

Some historians are of the view that the Ojibwa only started to occupy land west of the Red River in the late eighteenth century (Hickerson 1962, 1967, 1988). According to many archival records, the territory was occupied by Cree and Assiniboine groups at that time (Hallowell 1992, p. 20-21; Ray 1996, p. 78-81). Hallowell (1992) suggests that the archaeological records of the Woodland phase are associated with Cree and Siouan-speaking people at that time (p. 20). According to some of the literature, Lake of the Woods and Rainy Lake were the southwestern limits of Ojibwa territory in Canada for the late eighteenth century (Hickerson 1962; 1967; 1988).

⁴ Following French Voyageurs from New France.

It is evident that westward movements of Cree, Assiniboine and Ojibwa took place during the eighteenth century. Ojibwa “from areas south of Lake Superior were moving onto the prairies by the late eighteenth century” (Greenberg and Morrison 1982, p. 84). These Ojibwa might have been somewhat different from the ‘Ojibwa’ of the sixteenth, seventeenth and early eighteenth century. As Hackett (2001) explains warfare, trade and epidemics led to “the consolidation of surviving groups and the creation of complex societies formed by the amalgamation of survivors from different ethnic or cultural groups” (Hackett 2001, p. 245).

Researchers suggest that Ojibwa moved into the Red River area with the smallpox epidemic of 1779-83 serving as a catalyst for much of the population movement at that time (Ray 1988; Peers 1994; Hackett 2001). Almost the entire Lake Winnipeg region became occupied by Ojibwa, as well as other parts of the Hudson’s Bay drainage (Hickerson 1962; Hallowell 1992, p. 21; Peers 1994, p. 18-21).

Based on the Fidler⁵ reports (1819/20; 1820) it is known that the Manitoba District – a fur trade region of the Hudson’s Bay Company (HBC) in western Canada of about 25,690 square miles west of Lake Winnipeg – was occupied by several Anishinaabe groups that were involved in hunting, trapping, fishing, gathering and trading activities. The Waterhen – Chitek Lake area is located just to the north of the middle of the Manitoba District. No specific mention was made of people or activities in the Waterhen – Chitek Lake Area but it is most likely that this area was part of the above mentioned activities. Ojibwa activities to the east, south and west of the Skownan Area were reported. The Skownan Resource Area was a secluded area, not well known to traders until the establishments of trading posts in the Waterhen area later on (Marion 1998, *pers. com.*).

⁵ Peter Fidler was a geographer and fur trader for the Hudson’s Bay Company from 1788 to 1822 (Parker 1978).

After the signing of Treaty Number Two in 1871, many Native people migrated from non-treaty areas to reserves in the Treaty Number One and Two areas. The archival research of the Waterhen posts is required in order to establish more precise information of Skownan's historical occupancy of the area.

5.5 The Meaning of Traditional Territory and Early Land Discrepancy in Manitoba

The traditional territory or homeland is fundamentally important to Aboriginal peoples across Canada. Many present-day Native communities cannot establish their occupancy on the land to the earliest times. Population movements based on trade, warfare, disease, and dislocation occurred throughout the centuries. Migrating groups re-established themselves in other parts on the continent and developed strong spiritual, cultural and socio-economic ties to the land (Ray 1996, p. 1). There is a general understanding of belonging to 'Turtle Island' among North American Aboriginal peoples (RCAP 1996a).

The concept of homeland is a fundamental basis for Aboriginal groups to assert occupancy, special privileges and perhaps ownership of an area. Strong links between identity and place exist. All people are defined by place in some way. Norton (2000) writes that

people interpret themselves and are also interpreted by others according to the place they live in, belong to, or originate from" (p. 276).

The strong identification with the land is a dominant subject to the people of Skownan First Nation. Also important to Manitoba's First Nations are the historical events that placed them, in their view, into a disadvantaged land position. In dealing with First Nations, one learns to understand that many of these issues have not been resolved from their perspective and are persistently on peoples' minds. First Nations' people

continually demand the resolution of outstanding issues from the federal and provincial governments. Differences in understanding of land occupation, treaty rights, access to land and resources are an on-going debate in Canada (Wenzel 1991; AJI 1991a; Ray 1996; RCAP 1996b and c; Tough 1996; Berkes 1999; Scott 2001a; Peters 2000; Usher 2003).

In Canada, the first accounts of land disputes can be found with Jacques Cartier, the first French explorer. In 1534, he claimed the land of the St. Lawrence valley near the Iroquoian village of Stadacona for the French Crown. Donnacona, the principal headman, immediately protested against this move (Ray 1996, p. 50-51). Tough (1996) explains that many written historical records indicate that Canada's Aboriginal peoples "had a concept of Aboriginal title, and that Indian chiefs were well informed about land and resources" (Tough 1996, p. 85). However, for the longest time, the Royal Proclamation of 1763 was seen as the only source of Indian title in Canada. The leading decision was that of the *St. Catherine's Milling and Lumber Company*⁶ case (Elliot 1992, p. 47). The Proclamation established that Aboriginal people could surrender lands only to the Crown. The 1973 *Calder*⁷ case marked a significant change for Aboriginal rights in Canada. Six of seven judges ruled that Aboriginal title derived from prior occupancy, therefore predating the Royal Proclamation and the Treaties (*Calder* 1973, p. 390-394; Elliot 1992, p. 47; Kulchyski 1994, p. 61-62).

Tough (1996) sees the treaty process in western Canada as "an outgrowth of the Royal Proclamation" (p. 76). The policy framework for surrendering Indian title was poorly developed since it underestimated Aboriginal population numbers. The commissioners did not account for growing Aboriginal population numbers (Tough 1996, p. 76 and 78). A brief description of the events in Manitoba is given to explain the historic events and land negotiations that led to the establishment of Treaty Number Two

⁶ *St. Catherine's Milling and Lumber Company v. The Queen* (1889), 14 App. Cas. 46 (J.C.P.C.)

⁷ *Calder et al. v. Attorney-General of British Columbia* (1973), 34 D.L.R. (4th) 145 (S.C.C.)

in 1871. Skownan First Nation is signatory to this treaty. The focus here will be on the unresolved land negotiation and promises. These issues continue to be highly important to Manitoba's First Nations communities.

In the early 1800s the fur trade was prosperous and the Aboriginal peoples of Manitoba were participating in the trade. In 1811, the first land dispute occurred in southern Manitoba when the Hudson's Bay Company sold Lord Selkirk a large tract of territory within Rupert's Land for "ten shillings and certain agreements and understandings" for land settlements (Morris 1880, p. 13). Out of the Selkirk grant, 116,000 acres of land near the Forks were reserved for settlers. The North West Company and the Métis feared that this would destroy the fur trade and took action to counter the movement (Ray 1996, p. 106-108). A lengthy dispute developed between the North West Company, the Métis, the settlers and the Peguis group, resulting in the massacre at Seven Oaks on June 19, 1816 (Dickason 1992, p. 263; Ray 1996, p. 108). Lord Selkirk was anxious to settle the issues of Aboriginal Title of the land grant. He decided that ceding with a small annual payment was better than selling the land (Manitoba 1984, p. 4). Different positions can be found in the literature about Peguis's position to negotiate the Treaty. One source claims that the Cree permitted the Ojibwa to deal with the land issues "as far west as the Whitemud River" (Manitoba 1984, p. 4). Ray (1996) writes that the Cree "never accepted the treaty and maintained that Peguis had no right to negotiate it in the first place" (p. 109). On July, 18, 1817, the Selkirk Treaty was signed. It gave Lord Selkirk access to 300,000 square kilometers along the Red and Assiniboine rivers "for an annual sum of one hundred pounds of tobacco paid to the Cree and Saulteaux tribes" (Manitoba 1984, p. 4; Ray 1996, p. 109).

The years that followed brought many changes to southern Manitoba. In 1821, the Hudson's Bay and North West Companies joined into one company. Population numbers increased and game numbers decreased (Ray 1996, p.109). In the early 1830s, the Peguis group started to engage in farming due to low wildlife populations (Buckley 1992, p. 37).

In 1836, the new company bought the whole Selkirk grant for 84,000 pounds. Chief Peguis disagreed with the land purchase and maintained the position that the Selkirk Treaty did not compose the surrender of the land (Thompson 1973, p. 32). In 1864, Peguis officially complained that the settlers did not live by the terms of the treaty (Ray 1996, p. 109).

In 1821, George Simpson, an experienced HBC trader, became governor of the HBC Northern Department, which included all of present-day Canada west of Ontario (Ray 1996, p. 161). Under his leadership, "the company devised a complex strategy to rehabilitate the fur trade of Rupert's Land" (Ray 1996, p. 161). A program was introduced that regulated beaver trapping. It banned the sale of steel-spring leg-hold traps in 1822. Harvest quotas for various districts in 1826 were introduced. The only exception to the system was allowed in frontier regions where American opponents were working (Ray 1996, p. 161). The company established open and closed trading seasons for beaver pelts and closed posts in areas where beavers were scarce. It opened new places where they were plentiful. Native people were also encouraged to trap other fur-bearing animals (Ray 1996, p. 161). Most Aboriginal groups were opposed to this program and often ignored the company's regulations. Beaver populations recovered sufficiently well in many areas. By the early 1840s, most of the restrictions were lifted (Ray 1996, p. 162). However, in the 1840s, the demand for beaver declined. Silk had become fashionable. The economic prosperity of the Aboriginal trappers declined drastically with a collapsing felt-hat market (Ray 1996, p. 162).

5.6 Events Leading to Treaty Two in Manitoba in Relation to Skownan First Nation

During the 1850s and 1860s, the government authorities were interested in opening the west for settlement and farming (Manitoba 1984; Buckley 1992; Ray 1996; Tough 1996, Peters 2000). Up to 1870, land was an essential resource for the subsistence and commercial needs of the local economy of both Aboriginal and European peoples in Manitoba. The use of land took on political and legal meanings that were new to the Aboriginal peoples. Tough (1996) takes the position that Manitoba's Aboriginal peoples "lost control over resources and obtained few benefits from their original ownership" (p. 75).

With the British North America Act (1867) and the Rupert's Land Act (1868), Rupert's Land was ceded to the Dominion of Canada. The authorities were aware of the Aboriginal claim but ignored the Native position. The mercantile property claim based on the Hudson's Bay Company Charter of 1670 took priority (Ray 1996, p. 165; Tough 1996, p. 8). On March 8, 1869, the Hudson's Bay Company sold its rights, privileges and lands to Canada for 300,000 pounds (then the equivalent of \$1,460,000) (Ray 1996, p. 199). The HBC Company "kept one-twentieth of the lands" in the agricultural zone and "retained the developed lands around its numerous trading posts (approximately fifty thousand acres)" (Ray 1996, p. 196). Between 1891 to 1930, the HBC eventually received \$96 million for the sale of this land grant (Ray 1996, p. 212; Tough 1996, p. 8).

The government established the legal and administrative frameworks that it believed it needed to deal with the Native people in order to establish the Province of Manitoba⁸ (Manitoba Act 1870). The area outside the boundaries of the Province became the Northwest Territories. Adams G. Archibald was appointed Lieutenant Governor of Manitoba and the Northwest Territories (Dickason 1992, p. 271-272; Tough 1996, p. 199; Bumsted 1998, p. 188-193). The Cree, Ojibwa and Métis were outraged.

⁸ postage-stamp shape

They had not been consulted. They were fearful of being dispossessed of their lands. The HBC Company and two governments “had treated the entire affair as if it were a straightforward real-estate deal involving vacant territory” (Ray 1996, p. 196).

The Aboriginal peoples were anxious to negotiate Treaties before more settlers would arrive. Research by Daniel (1980) indicates that during the winter of 1868-69, a number of Saulteaux and Cree chiefs were preparing for a treaty prior to the transfer of Rupert’s Land “to establish boundaries for their specific territorial claims” (in Tough 1996, p. 86). Pressure for a treaty was created when Native people from Portage la Prairie denied settlers rights of use of resources in 1870 (Tough 1996, p. 86). A complex history concerning Aboriginal title and the Métis population developed in Manitoba (Dickason 1992, p. 269-272; Ray 1996, p. 217-221).

The final phase of the fur trade era left many Native people impoverished. Native people sought to redefine their economic security. They were searching for economic alternatives and felt threatened by the increasing numbers of new immigrants. Many of these newcomers trapped part-time or full-time in order to survive. They were aggressive in their methods. Fur and game animals were depleted in various areas across Canada. Many Aboriginal peoples asked for help to cope with food shortages. Assistance for farming was demanded (Ray 1996, 207-209). Many times different Aboriginal groups “wanted to lease access and resource rights, rather than sell their lands to the Crown” (Ray 1996, p. 209). The Canadian government was not willing to negotiate on this level. The aim was to obtain land at the lowest cost possible to obtain access to agricultural land and timber resources. The Native people expected that treaties would secure their future economy (Ray 1996, p. 212; Tough 1996, p. 76-80).

In 1871, Wemyss McKenzie Simpson was appointed as Indian Commissioner to negotiate treaties with the Aboriginal peoples of Manitoba and the Northwest Territories (Morris 1880, p. 25). Aboriginal peoples were invited to Treaty negotiations at Lower Fort Garry between July 25 and August 17, 1871. By July 27, 1871, approximately one

thousand Native people had arrived as well as a considerable number of Métis. The Lieutenant Governor explained the format of the Treaties, the establishment of reserves and the right to hunt on land that could not be used for agricultural purposes (Morris 1880, p. 25-29). Although hunting and fishing rights were not included in the written versions of Treaty Number One and Number Two, they were orally promised. Aboriginal people were allowed to hunt on most of the lands under treaty until the lands were to be occupied (Morris 1880, p. 29).

There will still be plenty of land that is neither tilled nor occupied where you can go and roam and hunt as you have always done, and if you wish to farm, you will go to your own reserve where you will find a place ready for you to live on and cultivate (in Morris 1880, p. 29).

Hunting, trapping and fishing rights are considered applicable to all numbered treaties without being specified in each treaty. During treaty negotiations, the commissioners emphasized that the Native people could adjust over time to the new arrangements (Tough 1996, p. 83).

Since the time of the treaties, there have been fundamental differences in understanding by Manitoba's Aboriginal peoples of the Aboriginal and Treaty rights in regards to access to hunting, wildlife and natural resources. Major differences in understanding about the size of reserves were apparent during the Treaty negotiations. The assembled Aboriginal people claimed two-thirds of the Province of Manitoba (postage-stamp form at the time) as being a reserve for them (Morris 1880, p. 33). Tough (1996) provides a map of the claims made by Native groups at Treaty Number One talks (p. 94). Native leaders also questioned the treaty commissioners about the provision of reserve land for growing population numbers. The commissioners gave the impression that reserves could be expanded or surrendered to create larger reserves further west "to meet the needs of growing Native populations" (Tough 1996, p. 95). These different understandings continue to be evident in the Aboriginal populations of Canada today.

They are part of their Aboriginal worldviews. Treaty Number One was signed at Lower Fort Garry on August 3, 1871 (Morris 1880, p. 25-32, 313-316).

On August 21, 1871, Treaty Number Two was signed at the Manitoba Post (on the west shores of Lake Manitoba) by five native leaders representing eight or more native groups in the Treaty Two area. Some of the people assembled at the Manitoba Post had been witnessing the negotiations at Lower Fort Garry and were familiar with the terms of the Treaty. Treaty Number Two was signed the same day the Lieutenant Governor and the Indian Commissioner arrived at the post (Morris 1880, p. 25-32, 316-320). Conventionally, only the written treaties are considered for interpretation, whereas Aboriginal peoples and many researchers today demand the inclusion of the negotiations and other written records as well as the understandings of Native peoples (Tough 1996, p. 75, p. 82). In the *Sparrow*⁹ case, the Supreme Court stresses a “generous, liberal interpretation” of Aboriginal and Treaty rights (p. 228, in Kulchyski 1994, p. 213). A careful reconstruction of the treaty process is required to allow proper understanding. This is an on-going process in Canada.

The economic context of the treaty-making process and the economic influences shaping Native history after the treaties are very important to Manitoba’s Aboriginal peoples. They play a strong role in Skownan First Nation’s view of economic development of the Chitek Lake area. According to Tough (1996) all aspects of treaty negotiations are evidence that Native peoples “viewed treaties as a means to improve their economic conditions” (p. 101) at the end of the fur trade.

⁹ *R. v. Sparrow*, [1990] 1 S.C.R. 1075

5.7 The Establishment of Waterhen River Reserve and the Importance of Access to Natural Resources off Reserve

Chief François Brokenfingers signed for the people that became the O-Chi-Chak-Ko-Sipi¹⁰ First Nation and Skownan First Nation. The people who later formed Skownan First Nation had split off from the group that became O-Chi-Chak-Ko-Sipi First Nation before the treaty. A group of people moved north of Meadow Portage into the Waterhen and Chitek Lake areas. The move was made since this area was considered to be better hunting, trapping, fishing and gathering grounds and promised to be a more reliable economic base (Nepinak 1997, *pers. com.*). As Tough (1996) explains “favorable combination of available resources” (p. 151) was important to Native bands. Confusion over the grouping of several Native bands existed for this area. On October 22, 1873, Indian Agent St. John reported on the

mistake in formerly classifying the Waterhen River Indians with the Crane River Indians. They are separate and distinct Bands, and it appears that last year Mr. Commissioner Simpson separated the two, giving Waterhen River Indians their own Chief. At the same time he gave the Crane River Indians permission to the border of Ebb and Flow Lake¹¹, near Manitoba House (Indian Affairs 1874, p. 60).

The Census Lists from 1871 to 1875, present the populations of Skownan, Crane River, and Ebb and Flow Bands as a unit (Indian Affairs 1879). In 1876, 128 people, nineteen men, twenty-two women, eighty-five children and two other children for the Waterhen River Band were counted (Paysheet 1876). The paysheet (1876) shows the names of twenty-two families. The reserve for the Skownan First Nation was established in 1877. The population movements between 1871 and 1877 were fluid and complex. People traveled long-distances and met up with other groups. Some groups merged or split up. The group known today can be traced back to the time of the establishment of reserves and band registrations. The histories of the Skownan, O-Chi-Chak-Ko-Sipi, Ebb

¹⁰ Formerly named Crane River First Nation. The present-day reserve was surveyed in 1888.

¹¹ ‘Crane River Indian Reserve’ was the the first Treaty Two reserve to be surveyed in Manitoba at Ebb and Flow Lake in February 1874. A few years later this reserve became ‘Ebb and Flow Indian Reserve’ (McLeod 1999).

and Flow, and Fairford River Reserves are complex. More research is required in this area.

Reserves, posts, missions, family camps, and spiritual ceremonial sites combined with mobility and stationary economic activities allowed for a flexible land-use system. Gardens provided additional needed food supplies (Tough 1996, p. 143). Settled communities were forming around posts and missions largely as “the result of economic responses rather than political pressure” (Tough 1996, p. 144). The plan to settle Native people on reserves was linked to the idea of agricultural economic development. Increases in gardening and stock raising were essentially the result of Native initiatives (Tough 1996, p. 144). They were committed to agriculture as one response to the shortages in the hunting economy. In the late 1880s and early 1890s, subsistence agriculture declined with an increase in wildlife resources. Moose and caribou were at a high again (Tough 1996, p. 167).

Throughout the Interlake, Native people selected reserve sites that “included fisheries, high ground, hay marshes, and timber” (Tough 1996, p. 150). Sufficient cattle grazing areas were an important consideration. The choice of the Waterhen River Band was that of a grazing, hunting and fishing location. Additionally, there were four HBC posts in the general area: one at Meadow Portage, a smaller post on the West Waterhen River and another post on the Waterhen River or Creek (1896-1891), and an outpost at Salt Point (1870) to the south west of Waterhen on the east shore of Lake Winnipegosis. The history of these posts has not been researched.

Early on, people of the Waterhen River Band realized that the given reserve was too small and unsuitable to make a living due to the extent of swampy land and stony ridges. The high water levels during the late 1870s and early 1880s, flooded portions of many Interlake Reserves. Some reserves had their boundaries adjusted in order to deal with the changing water levels (Tough 1996, p. 156). Waterhen River Band members have requested land exchanges since 1879 (Martineau 1879), for a new or larger reserve

in 1897 (Camper 1897) and even for the surrender of their reserve to join the Pine Creek Band in 1898 (Chamont 1898). Camper (1897) wrote in a letter:

2) The Indians of Water Hen River complain that a greater part of their land is land under water every spring, so that they cannot farm, and they can scarcely find hay enough for their cattle in the Reserve. ...

Also in 1879, the annual report noted that the Waterhen people “were forming a kind of village in hopes of having sufficient number of children to enable them to start a school” (CSP 1880, p. 65). In April 1899, the Waterhen River Band again requested to be transferred to Pine Creek. Thirty-two people signed a petition for the following reasons:

We, the undersigned Chief, Councillors and Members of the Water Hen River Band of Indians, humbly beg to request the Department of Indian Affairs to grant us another reservation, the education of our children than [sic] we now possess. We agree to unite and form one large Indian reservation of our free will, by amalgamating several Indian reserves together at or near Pine Creek Indian Reserve, where we require larger buildings for our Boarding School and Schools, with proper staff to look after our children, one Model Farm with proper competent Farmer to teach us and lead us in husbandry, and a higher grade of cattle than we have on hand at present (Water Hen River Reserve 1899).

The government responded with letters. No action took place on land addition or exchange based on the request, already made twenty years earlier in 1879. Jackson (1909) asked for “a full report on this matter” - the land exchange request - in a letter. In July 1914, a survey for a small land exchange was approved (Mc Lean 1914). In June 1916, the survey was completed (Mc Lean 1916). In January 1917, the land exchange was approved. On March 14, 1917, eighteen band members signed the document of land exchange (Department of Indian Affairs 1917) adding approximately 160 acres of hay land to the west side of the reserve in exchange for the surrender of some swamp land. Since 1918, the Waterhen Reserve land base has remained unchanged with the exception

of some minor modifications. This small addition of hay land was not sufficient to make amendments to significantly improve the agricultural situation.

From 1875 to 1915, the Waterhen River Band was largely involved in gardening and cattle raising on reserve (Tough 1996, p. 201). Additionally, the people of the Waterhen River Band relied heavily on their traditional land-use activities covering an area north of Meadow Portage to The Pas Moraine since the establishment of the reserve in 1877 (Catcheway, D. 1998, *pers. com.*).

Under the Treaties, the Aboriginal peoples and the Government of Canada agreed that the Aboriginal peoples were to live on Reserves but could acquire elements of their livelihood from the surrounding Crown land. They might hunt, trap and fish on the ceded land 'for as long as the sun shines, the grass grows and the rivers flow'. After signing the Treaties in the 1870s, the time that followed was marked by cultural repression and impoverishment of Aboriginal people in the Prairie Provinces (AJI 1991; Tough 1996, p. 76-78, p. 97-98, 231-233). Some members of Skownan First Nation remembered the stories told by their parents and grand-parents about the passes, the restriction of movement and lack of work opportunities (Nepinak 1997; Catcheway D. 1998, both *pers. com.*).

For the people of the Skownan First Nation the Treaty commitments concerning hunting, fishing and trapping rights continue to exist, regardless of other subsequent land uses. In the Constitution Act, 1982, Canada recognized and affirmed existing Aboriginal and Treaty rights¹². The issues of existing Aboriginal and Treaty rights are significant for the establishment of fully protected areas. Aboriginal and Treaty rights are equally important with respect to the remaining land in the Skownan Resource Area that is not part of the protected area.

¹² S. 35.(1) of the Constitution Act of 1982.

This chapter illustrates that the people of modern-day Skownan First Nation have been in the Chitek Lake area since the time before the Treaty. They have an extensive history of using and managing the local forest environment. The forest and its resources have been and continue to be vital to the livelihood of the people, especially in time of economic hardships when agriculture failed to provide a secure economic base.

The land was and still is a place to fall back on. Some elders from Skownan and Pine Creek First Nations were of the view that as long as the land exists in its 'natural' form, it will always present an opportunity for wildlife to re-populate the land and help the people to survive (Contois Z. 1995; Moosetail G. 1997; Catcheway M. 1998; Catcheway D. 1998, all *pers. com.*). This knowledge is a central part of the Aboriginal worldview of the people of the Skownan First Nation (Nepinak H. 1997, *pers. com.*). They know from experience that depleted wildlife populations can be brought back due to conservation efforts. Additional species can be added. The land without major alterations especially is essential for this vision.

5.8 Summary of Chapter Five

The literature review of the archaeological pre-contact history reveals that early hunting and gathering societies have occupied the general Chitek Lake area since 5000 B.C. The climate was warmer and the area was under grassland cover. Early bison roamed the general Chitek Lake area and were hunted by the people of the time. The fens, wetlands and lakes cover most of these potential archaeological sites at this point in time. During the archeological survey stone tools were discovered, however dating was not possible. The woodland phase with pottery producing people was present in the general Chitek Lake area with the Wade Point site on the east shore of Lake

Winnipegosis, twenty kilometers to the west of Chitek Lake. Further archaeological surveys are needed west and south of Chitek Lake.

The ancestors of Skownan First Nation were active participants in contact trade activities. The specific fur trade history of Skownan First Nation requires further research. The literature review on early European settlement in Manitoba revealed that the Aboriginal people at the time were not satisfied with the treaty arrangements. They claimed that the Selkirk Treaty in 1817 did not extinguish Aboriginal title. Aboriginal peoples also had a clear idea of the meaning of territory and access to natural resources. Again the signing of Treaties Number One and Two, leaves different understandings by both parties that continue to be prevalent in dealings with Manitoba's First Nations. The different meanings and understandings of Aboriginal and Treaty rights and the establishment of the Waterhen River Reserve in 1877 have played an important role in the negotiations and decision making processes about the natural resources and wildlife conservation agreements in the larger Chitek Lake area.

Treaties, trade posts, missions, reserves and schools changed the socio-economic patterns of Manitoba's Native peoples from the fur trade to settled reserve communities. History is part of Aboriginal worldviews. The interpretations of historical events in the eyes of Canada's Aboriginal peoples differ from that of western society. Historical understanding from the Native perspective is essential for sustainable development initiatives with Aboriginal peoples in Canada.

The next chapter illustrates how Skownan First Nation has made significant contributions to sustainable development with the re-introduction of beaver, the development of the Chitek and Inland Lake fisheries, and the negotiations that lead to the establishment of the Chitek Lake Interim Protected Area.

Chapter VI

6.1 Introduction to Chapter Six

This chapter first deals with the historic events in Manitoba and specifically the Interlake from the time of the treaties to the 1930s. Significant economic changes took place as a result of growing world economies and technological developments. The changing fur trade, the establishment of fur blocks and registered traplines had significant impact on Native communities in Manitoba.

The second part of this chapter deals with modern day resource use demands and conservation interests of the larger Chitek Lake Area. It details the events that led to the establishment of the 'Chitek Lake Interim Protected Area'. The last section of this chapter illustrates the economic importance of the Chitek Lake and Inland Lakes fisheries - a significant economic component within the Chitek Lake Interim Protected Area.

6.2 The Changing Economic Landscape after the Treaties in Relation to Skownan First Nation

In Manitoba, the developments and events of the post-treaty time period created a new and complex reality for Aboriginal peoples. Tough (1996) gives an excellent account of these times. Tough (1996) and Buckley (1992) criticize the Treaty provisions and the establishment of reserves as insufficient and unsuitable for the long-term success of Aboriginal communities (p. 173-173; p. 5-15). The reserve history on the Prairie Provinces has largely excluded the Aboriginal populations from participating in the economies of newly developing provinces. Buckley (1992) explains that the Canadian government exercised a degree of control over Native populations in the Prairie Provinces that did not exist in the eastern provinces or in British Columbia. She claims that Aboriginal prairie communities are generally worse off today than Aboriginal

peoples in other parts of Canada. This can be partly traced back to the early reserve history (p. 5-6).

The hard times of adjustment to life on reserve were marked by the even harder years of economic depression during the First and Second World Wars and the great depression in-between. These times have shaped the people of Skownan First Nation in their values, views and visions. The hard times have been a significant factor in the development of reserve communities, where moving to places of better economy is less an option than for most Canadians. As Tough (1996) notes “the selection of reserves was permanent – even though the economy was transitional” (p. 172).

However, the newly developing economy first looked promising to Aboriginal populations since “both Native peoples and frontier resource capitalists made similar locational decisions” (Tough 1996, p. 172). New economic alternatives for the Manitoba Interlake and Westlake regions were the establishment of fish stations, steamboat landings, and sawmills near or on reserves. Additionally, Native people participated in agriculture (off-reserve farm labor), commercialized gathering (berries and seneca root), railroad, road and telegraph construction, and other spin-off economic opportunities (Tough 1996, p. 198-199). For several decades, Native people from around lakes Winnipeg, Manitoba, St. Martin, and Winnipegosis were actively participating in a rapidly developing and changing economy. At the turn of the century, the on-reserve economy of Skownan First Nation (then Waterhen Band) consisted primarily of trapping, hunting, fishing, gardening and some cattle ranching (Tough 1996, p. 201).

Some elders referred to this time as ‘the golden time of the Interlake and Westlake areas’ (Moosetail 1997, *pers. com.*). Throughout this time, Treaty rights and access to subsistence resources were important. Hunting and trapping provided on-going income security with the newly developing frontier industries (Moosetail 1997, *pers. com.*).

6.3 Commercial Fishing and Lumbering Industries

During the 1880s, a large-scale commercial fishing industry developed in Manitoba (Tough 1996, p. 175-186 and p. 234-248). Local and export-oriented fisheries to the United States provided reliable incomes for people of Aboriginal and European descent. Fish was a staple food resource for Aboriginal peoples on the North American continent during pre-contact time, the fur trade and the post-fur trade / treaty time (Fidler 1820; Hickerson 1962; Peers 1994; Ray 1996; Tough 1983, 1987a and b, 1996). It continues to be an important food and commercial resource for Skownan First Nation today. The fur trade reports by Nelson (1807/08) and Fidler (1819/20; 1820) explain the importance of fishing in the Manitoba district for the survival of the traders and their men and the ease with which fish were caught. Large quantities of fish were stored at posts.

Coming from this long-standing historical fishing background, Native people were involved in the commercial fisheries from the beginning. Men from Skownan and Pine Creek First Nation were involved with the fishing industry on Lake Winnipegosis early on (Abigosis 1995; Contois E. 1995, both *pers. com.*). Parallel to the development of the fish industry came the lumbering industry (Tough 1996, p. 186- 187).

Besides fishing, many men from reserve communities earned additional incomes while working for lumber camps in winter times (Tough 1996, p. 195). The elders of Skownan and Pine Creek First Nation spoke about these days (Abigosis 1995; Moosetail G. 1997; Catcheway D. 1998; Marion 1998; all *pers. com.*). The 1920s and 1930s were called the 'time of the little sawmills' (Moosetail 1997, *pers. com.*).

From the time of Treaties until the great depression of the 1930s, Native people from the Interlake were active partners in this economic boom and made significant contributions to Manitoba's economic development (Tough 1996 p. 188; and Abigosis 1995; Moosetail G. 1997; Nepinak 1997; Catcheway M. 1998; all *pers. com.*). At the beginning of the twentieth century, the town of Winnipegosis on the west side of Lake Winnipegosis became a boom center for lumber and fish. A new HBC post, stores,

warehouses, hotels, churches and a railway station house were built (Tough 1996, p. 196). It became an important trading and employment center for people from Skownan and Pine Creek First Nations (Moosetail 1997, *pers. com.*). People from the Waterhen area traveled from Salt Point by boat during the open water season or by trails with horse and wagon via Meadow Portage to Winnipegosis (Marion 1998; Nepinak, H. 2004, both *pers. com.*). The lives of the Aboriginal people of the Interlake and Westlake regions were strongly interwoven with the economic boom and recession times.

In the late 1880s and early 1890s, Native people and Indian agents reported on problems with over-fishing whitefish for the first time (Tough 1996, p. 180). This led to a campaign demanding restrictions on commercial fishing, a movement initiated by Native fishermen who saw their livelihood threatened (Tough 1996, p. 174). However, the well-intentioned campaign resulted in regulations to the disadvantage of Native fishermen. A two-dollar license fee was introduced. Native fishermen protested. They considered the fee to be a violation of their Treaty rights. However, federal fisheries officials did not change their position on the commercial license fee for Native peoples (Tough 1996, p. 235-237). Manitoba's Aboriginal peoples of today, consider these events as a breach of their Aboriginal and Treaty rights and regard fishing licenses as unjustified (Catcheway D. 1998, *pers. com.* and other comments from several meetings). The struggle for survival of Native fishermen in an aggressive fishing industry continued. At the turn of the century, the combining of commercial fish companies created a decline in prices paid for fish which resulted in decreased incomes for Native and non-Native fishermen (Tough 1996, p. 244-248).

Reliance on a variety of natural resources and access to the land were essential to Native people for survival after the decline of the Manitoba fish industry. Fishermen of Skownan First Nation know of these times and insist on the exclusive fishing rights in the larger Chitek Lake area for their economic survival. The current arrangement allows for licensed fishermen from the surrounding communities of Mallard, Rockridge, and

Waterhen but not from communities further away. People of Skownan First Nation were strongly opposed to road developments to Chitek. Roads would invite sports fishermen and applications for commercial licenses from communities along highway number six.

A similar history with the fur trade developed and led to the establishment of fur blocks.

6.4 Revival and Collapse of the Fur Trade from 1900 until 1930

From the late 1880s to 1914, the fur trade experienced a short-lived economic recovery due to the development of a strong American fur market. Substantial competition between the HBC and independent fur buyers developed (Tough 1996, p. 249-250). This period marked a substantial increase in non-Native trappers. They competed with Native trappers for fur resources. Non-Native hunters and trappers were aggressive in their pursuit of income based on hunting, trapping and trading (Tough 1996, 260-261 and Ray 1996, p., 275-276). Based on the overall depletion of wildlife and furbearers the first legislative restrictions were imposed in order to protect animals. In 1893, Ontario passed the first game-protection act which became the foundation of succeeding game acts. Aboriginal peoples were exempt from most of the restrictions. In 1906, a temporary ban on beaver trapping for both Native and non-Native people was passed (Ray 1996, p. 277). In 1917 and in 1918, Parliament passed new game acts for the Northwest Territories imposing "closed seasons on moose, caribou, mink, muskrat, ptarmigan, wild geese, and wild ducks" (Ray 1996, p 277). Aboriginal people were only allowed to hunt out of season in case of starvation. No provisions were made to supplement Native income and access to food in other ways. The welfare system did not yet exist (Ray 1996, p. 277-278). The fur prices crashed after the First World War. Throughout the 1920s, prices and demand for fur stayed low. The short economic boom gave Native people an incorrect sense of economic confidence (Tough 1996, p. 263-268).

Alternative economic developments for Aboriginal populations were not available since increasing immigrants filled the northern development positions pushing the Native workforce out. The depression of the 1930s made things worse and trapping declined even further. The depression of the 1930s presented instability and poverty for many Native people in Manitoba. Elders of Skownan First Nation remembered the hard and poor times of the 1930s and 40s (Catcheway E. 1998; Catcheway M. 1998; Nepinak B. 1998, all *pers. com.*). Treaty hunting, trapping, fishing, and gathering for personal consumption as well as gardening and cattle ranching were essential for survival during the great depression (Catcheway E. 1998; Catcheway M. 1998; Nepinak B. 1998, all *pers. com.*). Agricultural practices remained on a subsistence level. Reserve communities did not have access to the newly developing technological advances in agriculture (Ray 1996, p. 261).

The economic conditions for Aboriginal people steadily worsened from the beginning of the First World War (Buckley 1992; Tough 1996; Ray 1996) and have not recovered to this day. On southern reserves the land quality is mostly too low and the acreage too small for modern-day farming. Skownan reserve fits into this category. The reserve allows for some cattle ranching and private gardening. The early intentions of transforming Native people into farmers on reserve have failed as a viable alternative solution to hunting. The access to the traditional land-use territory is essential to the people of Skownan First Nation with the developed fishing industry as well as other traditional and commercial activities.

6.5 The 1930 Natural Resources Transfer Act and its Implications

Across Canada, numerous conservation groups developed. They consisted mainly of sports hunters, sports fishermen and naturalists who were keen to protect game, fish, and bird populations for their own pleasure. These groups were of the opinion that Aboriginal peoples did not deserve special hunting rights. Based on the efforts of these groups conservation laws and hunting regulations became more restrictive (Ray 1996, p. 278-279). These hunting regulations, favoring sport hunting and fishing over Aboriginal and Treaty rights, continue to be cause of a widespread dissatisfaction among Aboriginal peoples.

From 1870 to 1930, Native hunting rights in Manitoba fell under federal jurisdiction. In 1888, the *St. Catherine's Milling*¹ case acknowledged that Native hunting rights fell exclusively within federal jurisdiction (p. 60). Parliament had the authority under s. 91 (24) to regulate Indian hunting and trapping, both on and off reserves² (McNeil 1983, p. 12). At the same time, jurisdiction over game was granted to the Provinces by ss. 92(13) and 92(16) of the Constitution Act 1867 (Department of Justice 1989, p. 32-33). Case law prior to 1930 restricted the hunting and trapping rights of Treaty Indian off reserve according to provincial law (Department of Justice 1989, p. 32-33). Section 88 of the Constitution Act, Parliament made Native peoples "subject to all provincial laws of general application, such as large-game hunting and trapping legislation" (Ray 1996, p. 280). In 1916 government conservation policy was developed for the North West Territories. The courts upheld the position that parliament had the power to unilaterally override Aboriginal treaty rights for conservation purposes (Ray 1996, p. 280). This double standard legislation of Parliament and provinces have created complex legal issues in regards to Aboriginal and Treaty rights (Ray 1996, p. 280).

¹ *St. Catherine's Milling and Lumber Company v. The Queen*, [1888] S.C.R. 577 (P.C.) [Ont.]

² *R. v. Jim* (1915), 26 C.C.C 236 (B.C.S.C.); *R. v. Stoney Joe* [1981] 1 C.N.L.R., 117 (Alta. S. C., 1910).

In 1930, the Natural Resources Transfer Agreements, subsequently incorporated into the Constitution Act, 1930 (RSC 1970, App. II, No. 25) transferred the jurisdiction of Crown lands and natural resources from the federal government to the provinces of Manitoba, Saskatchewan, and Alberta (Morse 1989, p. 356). The agreements are part of the Constitution of Canada (item 16 in the 1982 Act). The acts gave these provinces the power to override the Treaty provisions. With regard to Treaty hunting, trapping and fishing, paragraph 13 of the Manitoba Agreement (paragraph 12 of the Alberta and Saskatchewan Agreements) reads as follows:

In order to secure to the Indians of the Province the continuance 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 (in: Morse, 1989, p. 356).

Paragraph 13 of the NRTA makes clear that it was the intention of the Government of Canada to secure to the Native people a supply of game and fish as food resources when the responsibility for natural resources was transferred to the Province in 1930. Under the treaties, hunting rights were general; under the NRTAs, the rights have been restricted to hunting, fishing and trapping for food at all seasons of the year on unoccupied Crown lands and lands to which they have a right of access. Paragraph 13 does not expressly take away treaty rights (McNeil, 1983, p. 20-21, 23).

The Natural Resources Transfer Agreements were negotiated without consultation with the affected Aboriginal peoples. As of today, they see this move as a breach of the Treaties and a violation of the Aboriginal and Treaty rights (Nepinak H. 1997; Contois Z. 1998; Catcheway D. 1998; all *pers. com.*). The fact that hunting, fishing and trapping rights were restricted to food for all seasons of the year or otherwise to be restricted by provincial regulations such as open and closed seasons, commercial trapping and fishing

licences is in principle not acceptable to Aboriginal peoples. It has been well established in the literature that Aboriginal peoples had significant trading routes and centres during pre-contact and contact times. In the early contact times, it was the European trade that followed the Aboriginal trade routes to trade centres in order to establish trade relationships. Aboriginal peoples have traded with game, fur, fish, roots, seeds, shells and many other objects on a commercial base up to the 1930 NRTA (McCarthy 1939; Driver and Massey 1957; Griswold 1970; Wood 1972; Thistle 1986; Milloy 1990; Tough 1996; Kretch III 1999; Binnemar 2001).

From 1930 on, a new, more industrial economy developed in northern Manitoba. Mining, large-scale forestry, hydroelectric power developments started to take place and the expansion of commercial fishing continued (Tough 1996, p. 289). However, the buoyant economy for the Native people of the Interlake based on fishing and lumbering collapsed during the 1930s. The replacement of steam-powered boats with gasoline boats reduced the demand for cordwood cutting and other associated work. It left a lot of Native people unemployed. The newly found prosperous mixed-economy ended for Native people of the Interlake and Westlake regions. Government support for reserve communities increased during the 1930s (Tough 1996, p. 295 and 297).

Externally proposed developments have the largest effect on Skownan First Nation. During the early 1950s, provincial highway road access to Skownan First Nation was developed. This led to increased economic opportunity in sports hunting and fishing and guiding activities that Native and non-Native people of the area engaged in. It devastated the moose population. Non-Native settlers built several hunting and fishing lodges. A waterfowl game reserve was established on McCloud's Island directly west of the reserve community for the exclusive use of American air force officers.

In the 1950s, coming out of years of economically depressed conditions, Skownan First Nation under the leadership of Chief Moise Catcheway and later Chief Harvey Nepinak continued to develop resource and wildlife restoration programs in order to have

staple access to traditional food resources and a bush economy that is suited to the needs of the people. Re-introduction of beaver and the restoration of other fur species, the building of a sawmill, the Skownan Moose Management agreement, the establishment of the Chitek and Inland Lake Fisheries, the establishment of the Chitek Lake Wood Bison Herd and the establishment of the Chitek Lake Interim Protected Area are major developments for Skownan First Nation. The road access allowed Skownan First Nation to enter the fishing industry with prime pickerel from Lake Waterhen, the Waterhen Rivers and the development of the Chitek and Inland Lake fisheries. These resource developments continue to be an integral part of Skownan First Nation's economic activities as well as cultural, social and spiritual values and worldview. Access to a traditional hunting territory was crucial for the survival of the people of Skownan First Nation during times of depression and poverty.

6.6 Skownan Fur Block

The decline of beavers in eastern and central Canada was widespread (Ketch III 1999, p. 181). Increasing European trapping activities placed significant pressure on beaver populations. Northern Algonquians displayed considerable concern about these developments and demanded protection measurements. In the first two decades of the twentieth century, restocking programs for beaver were instituted across the United States and Canada. At times stringent laws restricted trapping and impacted on the economies of Aboriginal populations (Kretch III 1999, p. 177, 194-195).

In 1925, the British Columbia government introduced a registered trapline plan "giving individual trappers exclusive trapping rights in specific tracts of land" (Ray 1996, p. 280). In Manitoba, Aboriginal leaders also lobbied for such a development. In other

areas, such as central Saskatchewan, Aboriginal peoples opposed the registered trapline program. These areas consisted of large tracts of undeveloped Crown land, to which treaties guaranteed them unrestricted access for hunting and trapping purposes (Ray 1996, p. 280-282). However, provincial and territorial governments were determined to introduce the trapline-registration programs despite Native objections. Ray (1996) notes that courts overruled Native objections and took the position that “preserves were, in fact, ‘developed’ land” (p. 282). The Native groups were opposed to this development. They feared that trapline-registration programs legitimized non-Native access to fur and game resources on now ‘developed’ Crown land.

During the 1930s and 1940s, provincial authorities established vast beaver and muskrat preserves in Northern Ontario, Quebec and in some parts of the Prairie Provinces. Often special harvesting privileges in fur preserves were granted Aboriginal trappers to minimize economic hardship (Ray 1996, p. 283). During the 1950s all of the Prairie Provinces were covered with Fur Blocks and Registered Trapline Areas Programs. The trapline-registration programs did benefit many Aboriginal groups by helping to restore beaver and other fur stocks. At the same time it kept non-Native trappers from taking over all trapping areas (Ray 1996, p. 281).

During the 1950s, Chief Moise Catcheway of Skownan First Nation was instrumental in developing the Fur Block system in Manitoba and in re-introducing beaver to the Skownan Fur Block in collaboration with the Game Branch of the Provincial Government and Indian Affairs. Skownan First Nation was one of the first communities in Manitoba to enter the fur block / trapline negotiations with the Province of Manitoba. The people of Skownan First Nation see the Skownan Fur Block as a resource area established for their exclusive use. In their view management for conservation purposes must be carried out jointly with the Provincial government (Nepinak H. 1997, Catcheway M., both *pers. com.*). Provincial government officials only

very reluctantly accept this position. The areas of trapping activities were documented in the traditional land-use and occupancy study (Stock 1996, p. 120-127).

To contemporary provincial government officials, Fur Blocks and Trapline Areas are not legal entities but rather based on policy. They bear no legal significance in contemporary dealings with the land. In contrast, Manitoba's First Nations, see the establishment of Fur Blocks and Registered Trapline Areas as a recognition and re-enforcement of the Aboriginal and Treaty Rights that include all traditional land-use activities. This position was stated many times by Native presenters and their representatives at the Clean Environment Hearings at The Pas and Winnipeg in 1997.

Skownan Fur Block comprises approximately 4000 square kilometers of the Skownan Resource Area. The most important land-use areas of the Skownan First Nation lie with the Skownan Fur Block. The Skownan Fur Block is surrounded by other Fur Blocks: The Camperduck Fur Block to the west, the Waterhen and Crane Fur Blocks to the south, the Gypsumville Fur Block to the east and the Grand Rapids Fur Block and Block C to the north. Block C was created through a special arrangement between Skownan First Nation, Pine Creek First Nation and Chemawawin First Nation due to the relocation of the last mentioned First Nation in 1963 (Abigosis 1995; Catcheway, M. 1998, all *pers. com.*). Chemawawin First Nation was in need of a Fur Block close to the new community. The other two communities gave up traditional user rights to this land to accommodate Chemawawin First Nation (Abigosis 1995; Catcheway, M. 1998, all *pers. com.*).

The establishment of the Skownan Fur Block in co-operation with the Province of Manitoba is considered by Skownan First Nation to be the most successful natural resource arrangement for Skownan's traditional land-use area. It is this level of understanding and co-operation that Skownan First Nation wants to see being applied to all natural resources agreements. The negotiations that led to the establishment of the Skownan Fur Block are seen as a model of co-management and sustainable development.

(Nepinak 1997, *pers. com.*). This is the fundamental basis of the Skownan Model for sustainable development presented in this dissertation: co-management agreements that benefit First Nations. They help with animal species protection and survival while benefiting the Native communities economically and socially. They provide a basis for the continuation of traditional land-use activities that in turn helps to maintain a 'way of life' for Aboriginal people. At the same time co-management agreements benefit the larger society with landscape protection and species conservation and providing alternative economic revenues. For example, the revenues are derived from the Chitek and Inland fisheries while providing a high quality food.

The most important agreement established in a co-operative manner between the Province of Manitoba and Skownan First Nation was the Skownan Fur Block in the early 1950s. That perhaps was the first and only time in the history since the time of Treaty Number Two that the people of the Skownan First Nation were asked to fully participate and were listened to. The people of the Skownan First Nation were content with this achievement and wanted all other matters in regards to the natural resources to be dealt with in the same manner of understanding and co-operation with the Province of Manitoba. It is in this way that the treaty rights are understood by the people of Skownan First Nation (Nepinak 1997, *pers. com.*). Later resource management agreements were achieved but never reached the same level of understanding and co-operation.

The reaffirmation of political and economic rights is central to the debate of Aboriginal issues in Canada (AJI 1991; Tough 1996; RCAP 1996a,b,c; Scott 2001; Usher 2003).

6.7 Forestry Interests in the Chitek Lake Area

Manitoba's forest industry and Aboriginal land-use activities present two different economies. The traditional forest economies of Manitoba's Aboriginal peoples do not focus on the size of timber stands, but on the forest as an ecological unit. Large-scale forest developments override traditional land-use activities. Consultation with Aboriginal forest communities before the signing of Forest Management License Agreements and the approval of Forest Management Plans has not been practiced in Manitoba. Since the signing of the Selkirk Treaty in 1817, the economic use of Manitoba's forests has been conducted without consultation with Manitoba's Aboriginal peoples (Stock 1996, p. 28).

From 1870 to 1930, the responsibility of the Manitoba forests was under federal jurisdiction. Enactment of the first 'Dominion Lands Act' (1872) conveyed all aspects of forestry administration to the Department of the Interior. Timber disposal under this Act was by licensed berths and permits (Canada/Manitoba 1984). The very limited field staff was concerned with the prevention of trespass and the collection of dues. The need for the preservation of wood supplies for the use of future settlers was recognized. In 1911, the 'Forest Reserves and Parks Act' was created to designate certain areas as 'Forest Reserves' (Gill 1960; Canada/Manitoba 1984). From 1911 to 1956, ten 'Forest Reserves' were established in Manitoba (Canada/Manitoba 1984). In 1912, the boundaries of Manitoba were extended northward to the sixtieth parallel of latitude and to the shores of Hudson Bay. In the same year, the Forestry Branch was reorganized and took full control of fire protection activities in the province (Gill 1960; Canada/Manitoba 1984). In 1921, interest developed in the possibility of establishing the pulp and paper industry in Manitoba. After prolonged negotiations between various commercial interests and the federal and provincial governments, the Manitoba Paper Company was formed, and a mill was erected at Pine Falls in 1927 (Gill 1960).

In 1930 with the 'Natural Resources Transfer Agreement Act', the Province of Manitoba obtained control over all aspects of forestry administration and developed the

'Provincial Forestry Act.' Responsibility for all of the forests was taken over by the 'Forest Service' of the provincial 'Department of Mines and Natural Resources.' The exception was Riding Mountain National Park, which was established a few months before the transfer (Gill 1960; Canada/Manitoba 1984). Rights to cut timber were granted, limited to specific areas and for specific periods of time. Title to the land itself remained with the Crown (Gill 1960). Under the Forest Act, timber-cutting rights were granted under authority of a forest management license, timber sale or timber permit. Special additional allocations of timber were made available to companies wishing to expand existing operations (Manitoba 1974). Pulpwood licenses were granted by legislative approval to owners of pulp mills, covering designated cutting berths. A 'Forest Management License' was granted, after a proper forest inventory and the submission of a working plan on sustained yield principles had received approval from the Minister of Mines and Natural Resources. A 'Forest Management License' was issued for twenty-one years, and was renewable for a further twenty-one years (Gill 1960). This process continues to exist, without much change. The most significant changes are the much larger sizes of forested land to be licensed. The sequence of granting of 'Forest Management Licenses' before 'Forest Management Plans' continues to be applied instead of establishing 'Forest Management Plans' first for approval of licenses. Both are assessed by the 'Manitoba Clean Environment Commission.' Created under Section 6 of the Environment Act (1988) the 'Manitoba Clean Environment Commission' (CEC) provides a mechanism through which the public can participate in the environmental hearings in Manitoba. The CEC provides advice and recommendations to the government with respect to environmental issues and licensing matters (Manitoba 1988).

In 1989, the pulp and paper company Repap acquired Manfor Ltd. (Manitoba Forestry Resources Ltd.) from the Government of Manitoba. As a result of the change of ownership and expansion of the operating area, Repap prepared a revised version of the

Manfor 1988-1992 Five Year Forest Management Plan (FMP). The revised plan detailed the intended harvesting and reforestation operations as well as related road development activities. The environmental hearings were not held until 1997. Tolko overestimated its growth potential (Campbell 1992; Billinkoff 1992; Stock 1996) and was sold to Tolko in 1997. The company operated to full capacity in the interim. Fourteen reserves and many more non-status and Métis communities felt threatened by the proposed timber-cutting and road-building plans and opposed the plans (Lucas and Williams 1990). The access rights to a large land area in the form of a Forest Management Licence (FML) were negotiated behind closed doors. Manitoba's Native peoples had not been informed of these negotiations and dealings. In their view, Aboriginal and Treaty rights were being infringed upon and the established Fur Blocks and trap lines were being jeopardized.

Among other products, the trees were required to produce kraft (brown) paper for markets in North America, Europe and Latin America (Tolko 2004). The kraft paper is used for 'two-ply, multi-wall packaging' (Tolko 2004). Much of the paper is utilized for cement bags in the developing world (Payne 2004, *pers. com.*) – a throw away product. One could say that the trees of the Chitek Lake area would be thrown away in the third world.

Former Chief Harvey Nepinak and Dr. Harvey Payne have been strong advocates of co-management in Manitoba (Nepinak and Payne 1988, 1992). The Skownan First Nation, together with the Pine Creek First Nation, approached the Department of Natural Resources with a proposal to develop a co-management solution in recognition of their existing land-use systems. Efforts to arrive at a co-management solution between Manitoba Natural Resources and the two First Nations were unsuccessful. Negotiations were placed in indefinite abeyance. Aboriginal land-use is not officially recognized as an integral part of natural resource use issues on unoccupied Crown land. "An Integrated Forest Harvest Management Plan" (Payne 1997) was prepared by Skownan First Nation.

The community attempted to negotiate with Repap for operations with lesser impacts. Repap rejected the suggestions for logging with winter road access only.

6.8 Environmental Hearings

In the spring of 1997, Repap was sold to Tolko - a British Columbia based pulp and paper company. In October 1997, the Clean Environment Commission Hearings were held at The Pas and Winnipeg. Chief Harvey Nepinak and the author of this dissertation presented the impact assessment findings. Dr. Harvey Payne on behalf of Chief Clifford McKay (Pine Creek First Nation) supported Skownan's position in a presentation. The Pickerel Lake Road and the Chitek Lake Wood Bison herd were major issues at the hearings. Concerns were expressed for the fragmentation of the landscape and negative impacts on wildlife populations, in particular moose, woodland caribou and wood bison (Manitoba Clean Environment Commission 1997). It was then suggested to establish a special status of Crown land for the protection of the Chitek Lake Wood Bison Herd. The creation of a working group was also proposed, with representatives from the Skownan First Nation, Manitoba Natural Resources and Tolko Manitoba, to address minimization of potential impacts (Stock 1997a). As a result of the presentation in The Pas, the commissioner of the panel asked the researcher to prepare a second presentation with the geographical facts about the Chitek Lake area in relationship to wood bison and logging. A presentation based on ten maps from the land-use study was given in Winnipeg (Stock 1996). The maps "Wood Bison Range (1991) & Forest Harvesting Plan" and "Wood Bison Range (1995) & Forest Harvesting Plan" as well as "Wood Bison Range (1995) & 1996 Forest Harvesting Plan" (Stock 1996, p. 161-165) were used to illustrate overlap of wood bison range with logging areas and road developments.

Based on the second presentation, the Commissioners recommended two unconnected winter roads as access roads for the Chitek Lake Area. It was suggested that logging should only take place during winter months (Manitoba Environment 1997). Manitoba Environment issued an order in accordance with the recommendations of the Clean Environment Commission (CEC). The Pickerel Lake Road as proposed was disapproved. Tolko appealed the decision to the Department of Environment without success. In the meantime, Skownan First Nation asked for the interim protection of the Chitek Lake Area under Manitoba's Network of Protected Areas (Manitoba Natural Resources 1996 and 1997). The southern part of the Forest Management License (FML) area of the pulp and paper company was withdrawn from the company since Tolko could not meet its own mill expansion proposals. With this the area is open for requests from other logging companies (except for the protected area) if needed.

6.9 Environmental Interests in the Chitek Lake Area

Other interests in the protection of the Chitek Lake area have been expressed since 1994. In May of 1994, the Manitoba Chapter of the Canadian Parks and Wilderness Society (CPAWS) launched a campaign with the slide-show presentation 'Blue Wilderness' to inform the public as to the potential for creating a National Park in the Little Limestone Lake and Long Point areas. CPAWS proposed a large section of the northern Interlake Region for the establishment of the Lowlands National Park. This proposal included the northern half of Chitek Lake (Turenne 1993, p.10). The CPAWS proposal was not accepted by the Manitoba government.

In 1997, the 'Canadian Nature Federation' (CFN) requested the extension of the Long Point component towards the south, to include Chitek Lake as a protected area (CFN 1997, p. 24-25). The proposed Pickerel Lake Road (all-weather logging road)

through the National Park component was critiqued by the Canadian Nature Federation (CNF 1997, p. 27). CNF urged the Manitoba Government to abandon the proposed all-weather transportation corridor because it would further fragment the Long Point component, which is already impacted by Highway No. 6 and a hydro-electric transmission line. They also urged rejection of the all-weather road in the interests of protection of wood bison, moose, elk and caribou ranges in the Skownan Resource Area (CNF 1997, p. 27 and McNamee 1997b).

The Canadian Nature Federation (CNF), in its technical assessment of the Lowlands National Park proposal - also based on the 'enduring features and gap analysis' methodology - came to the same conclusion as WWF Canada, that the area south of the Long Point component should be represented. The Pickerel Lake and Chitek Lake areas in particular were identified as needing protection (CNF 1997, p. 24-27; Clover Environmental Consultants 1996, p. 48).

Concerns have been expressed about logging and associated road construction developments planned for areas adjacent to the proposed Lowlands National Park. Intensified resource developments adjacent to parks and wilderness areas are slowly destroying the integrity of these ecosystems. Peripheral logging, up to the park boundaries, at an increasing rate, has been identified as a major problem with regard to the ecological integrity of parks across Canada (Searle 1997, *pers. com.*). All structures and activities required to support the forest industry, such as utility corridors and work-crew camps, cause environmental degradation around National Parks. They pollute air and water, create noise, alter wildlife migration patterns, destroy wildlife habitats and turn wildlife into 'problem animals' (McNamee 1989). It was suggested that wood bison at Chitek Lake would likely become 'problem animals' if developments were implemented as proposed.

The World Wildlife Fund Manitoba (WWF Manitoba) expressed interest in the Chitek Lake area in 1995-96 and was a strong supporter of Skownan First Nation at the

Clean Environment Hearings in Winnipeg. WWF Manitoba continued with its support in the negotiations to establish a protected area at Chitek Lake. Former Chief Harvey Nepinak of Skownan First Nation has expressed the view that he would rather see the Chitek Lake Area protected than logged (Nepinak 1997, *pers. com.*).

6.10 Establishment of the Chitek Lake Interim Protected Area

Following an extensive review of literature, government programs and proceedings and how Treaty rights might be affected, it appeared that there might be an opportunity to facilitate the establishment of a protected area at Chitek Lake. Skownan First Nation decided to try the avenue of negotiating for the establishment of an interim protected area based on the recommendations of the researcher. The appealing facts were that in such a protected area, there would be no logging but Aboriginal and Treaty rights were to be up-held.

In January 1998, Skownan First Nation requested the establishment of a protected area at Chitek Lake. Initially, Skownan First Nation wanted interim protection for much larger area. The First Nation inquired to address natural resource management issues on a much larger scope in order to determine a suitable protected area of permanent status. The community demanded a proper consultation process. Management issues for lands directly adjacent to a protected area were supposed to be addressed (for example the establishment of buffer zones). The provincial government rejected these suggestions. The Parks Branch then forwarded a proposal based on gap analysis and enduring features that focused primarily on woodland caribou habitat to the north and north east of Chitek Lake. The suggested area would have enabled the proposed road construction and logging activities to take place on the west side and south side of Chitek Lake. The suggested area contains mainly bogs and poorly forested areas. Important habitat for the

Chitek Lake wood bison on the west side of Chitek Lake would not have been protected in this proposal. Skownan First Nation rejected this proposal and sent in their request as seen in figure three. This area covers important traditional land-use areas and significant bison range as well as a certain amount of the woodland caribou habitat. This proposal in turn was rejected by the Parks Branch and the previously proposed area was resubmitted, with a proposed Wildlife Management Area to the west side of Chitek Lake (figure four). Wildlife Management Areas have negative connotations with First Nations following an attempt by the Province of Manitoba to declare them 'occupied' Crown land, thereby excluding legal hunting by Treaty people. The courts later rejected the provincial declaration (Payne 1998, *pers. com.*). In addition, a wildlife management area does not necessarily provide the same protective status as an interim park reserve, and logging could be allowed.

Finally, as a result of negotiations and discussion of the potential archaeological and cultural sites that had been identified through an interview process with three traditional land users, the evaluation of the current wood bison range at Chitek Lake and potential expansion of the range, as well as political wrangling, an interim protected area was established that satisfied both parties (figure five). Skownan First Nation was the first Native community in Manitoba to forward a Band Council Resolution to accept the establishment of an interim protected area in collaboration with the Manitoba Parks Branch, under the provisions of a 'Memorandum of Understanding' (MOU) signed in 1998.

On April 1, 1999, the 'Chitek Lake Interim Park Reserve' (100,400 ha) was established under the 'Provincial Parks Act' as a park reserve by an 'Order of Council': the designation is in effect until March 31, 2004 plus six months. At the same time, the 'Poplar River Interim Protected Area' (750,000 ha) was established in cooperation with Poplar River First Nation. Within this timeframe, large-scale resource extraction activities such as mining, logging, oil, gas and hydro-electric developments are

prohibited. Existing Aboriginal and Treaty rights are upheld, and traditional land-use activities prevail. The park reserve serves to protect most of the current range of the wood bison in the Chitek Lake area. A framework of a park management plan was supposed to be developed by Skownan First Nation and the Manitoba Parks Branch by 2004. This process was initially planned to begin in the fall of 1999. Due to the provincial election and change of government as well as a band election and change in local leadership, this process was delayed. A start-up date was re-established for January 2001. This date passed without action on the plan. On May 31, 2001, at the IISD workshop 'Integrating Aboriginal Values into Land-Use and Resource Management,' the Parks Director and the Interlake Regional Director for Conservation promised to be in touch with Skownan First Nation and to work on the management planning process with the community in the near future. Preliminary meetings on this issue with Skownan First Nation took place on June 4, July 31, and August 29, 2002. This is not what Skownan First Nation had in mind for a meaningful consultation process that they were promised with the establishment of the interim protected area.

In 1999, a formal, seven-step staged system was developed by the Manitoba Parks Branch to establish protected areas in collaboration with First Nations. In stage one (Notification and Information) introductory letters and workbooks, including a large wall-sized map, were provided to all First Nations in Manitoba to assist in the decision-making process. In stage two (Information Session(s)): "First Nations work together with Manitoba Conservation to complete decision-making about ASIs³ or other areas that would be supported or nominated for protection" (Manitoba Conservation 2000, p. 11). In stage three (ASI Discussion & Decision-making): "First Nations work together with Manitoba Conservation to complete decision-making about ASIs or other areas that would be supported or nominated for protection" (Manitoba Conservation 2000, p. 11).

³ Areas of Special Interest(s)

In stage four (ASI Formal Support or Nomination): “First Nation(s) support or nominate areas for protection by Band Council Resolution (or similar formal letter), with an attached map that clearly illustrates the area(s). Area(s) may be protected, if no changes to ASI(s) are proposed” (Manitoba Conservation 2000, p. 11). In stage five (Boundary Consultation)

as a result of further consultations with resource sectors, changes to the supported or nominated area(s) may be proposed. Significant changes will be reviewed by the First Nation for support before the area is designated. Area(s) may be protected after Stage 5, with First Nation support (Manitoba Conservation 2000, p. 11).

The staged process from one to five was not followed through with Skownan First Nation, since it was not in place when Skownan approached the province to protect the Chitek Lake area. This process has only been established as a result based on dealings with the Chitek Lake and Poplar / Nanowin Rivers Park Reserve afterwards.

Stage six deals with protected area management planning. It reads, “participation continues after a protected area is designated. Manitoba Conservation, in partnership with the First Nation(s), will develop a plan to manage the protected area” (Manitoba Conservation 2000, p. 11). The Chitek Lake Interim Protected Area process is presently between stages five and six. Skownan First Nation might bring up boundary issues in stage six, because the issue was not fully dealt with in stage five. There may be suggestions to enlarge the protected area to accommodate the expanding range of the wood bison toward the north. Stage seven, which is the final stage is protected area management: “First Nation(s) can participate directly in the on-going management of the protected area” (Manitoba Conservation 2000, p. 11).

In November 2003, the first phase of public consultation was conducted with four public open house drop-in sessions. The overall response to the proposed protected area at Chitek Lake was positive. A co-management approach for the future park management was demanded. Requests were made that other communities should have

access to economic benefits from the protected area despite the fact that these communities did not invest in the fishing industry and the wood bison project. This will be a problem for Skownan First Nation. A second phase of public consultations was scheduled for June 2004 with four open houses in Portage La Prairie, Waterhen, Mallard and Winnipeg (Manitoba Conservation 2004). Skownan First Nation does not consider these open house drop-in sessions as 'true' consultation. These are general information sessions that allow outsiders to voice their opinions instead of giving Skownan an opportunity to work on the issues with the parks branch.

A proper and fundamental consultation process is needed for the establishment of a management plan for the protected area. Consultation with the application of conservation measurements by provincial and / or federal governments is implied in the *Sparrow*⁴ decision of the Supreme Court of Canada:

Within the analysis of justification, there are further questions to be addressed, depending on the circumstances of the inquiry. These include the questions of whether there has been as little infringement as possible in order to effect the desired result; whether, in a situation of expropriation, fair compensation is available; and, whether the aboriginal group in question has been consulted with respect to the conservation measures being implemented (*R. v. Sparrow* 1990 in Kulchyski 1994, p. 235).

Sparrow is considered to be a landmark decision for Aboriginal and Treaty rights in Canada. With this case the Supreme Court of Canada has given some general rules for interpreting section 35(1) of the Constitution Act, 1982. This section is found in Part II of the Act and entitled "Rights of the Aboriginal Peoples of Canada":

35.(1) The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed.

In the *Sparrow* case, the Musqueam band of British Columbia was given priority fishing rights when fishing for food after conservation measures were implemented. The case is giving the Aboriginal and Treaty rights to fish for food priority after conservation

⁴ *R. v. Sparrow*, [1990] 1 S.C.R. 1075

before benefiting anybody else. In the *Sparrow* decision Supreme Court Judge Dickson quotes from his reasoning in *Jack v. The Queen*⁵

Conservation is a valid legislative concern. The appellants concede as much. Their concern is in the allocation of the resource after reasonable and necessary conservation measures have been recognized and given effect to. They do not claim the right to pursue the last living salmon until it is caught. Their position, as I understand it, is one which would give effect to an order of priorities of this nature: (i) conservation; (ii) Indian fishing; (iii) non-Indian commercial fishing; (iv) non-Indian sports fishing; the burden of conservation measures should not fall primarily upon Indian fishery (p. 261).

Skownan First Nation is concerned about the issuing of future sports fishing, hunting and guiding licences by the Province under park regulations once the Chitek Lake Interim Protected Area is a designated protected area and becomes a provincial park. Based on the *Sparrow* and *Delgamuukw* decisions, Skownan First Nation developed a 'First Nation Consultation Protocol' (Skownan First Nation 2001) and sent it to the Parks Branch. It sets out guidelines as to how consultation should to be conducted concerning all issues relating to the 'Skownan First Nation Traditional Territory' based on how Skownan First Nation understands the *Sparrow* and *Delgamuukw* decisions.

The tests outlined in *Sparrow* define that federal and / or provincial conservation regulation must be developed with as little infringement as possible on Treaty or Aboriginal rights. This is important to Skownan First Nation. Consultation is referred to and further emphasized in the *Delgamuukw*⁶ decision. For example, when regulating a fishery, according to *Delgamuukw*, consultation is required if there is going to be any impact on the First Nation's fishery (Elliot 1992, p. 124-144).

Skownan's 'First Nation Consultation Protocol' lists resource extraction, exploration activities, application for licenses to conduct business (outfitter licensing, licensed sport hunting, tourist operations etc.), and any alienation of any land to be

⁵ *Jack v. The Queen*, [1980] 1 S.C.R. 294

⁶ *Delgamuukw v. B.C.*, [1997] 3 S.C.R. 1010

considered for full consultation (Skownan First Nation 2001). Skownan First Nation demands to be consulted at an early stage of any such considerations and in any event before any license, permit or other is issued. Skownan First Nation expects government to provide notice, in writing, when a situation arises that requires consultation. Consultation after the fact is not acceptable to Skownan First Nation. Also, consultation in the later stages of any approval process, when significant time pressures may be applied to the consultation process, is not acceptable. It undermines effective and meaningful consultation with Skownan First Nation. It should be noted that the Manitoba government has neither accepted nor rejected this Skownan's protocol. On March 10, 2004, a draft proposal on the park purpose was provided to Skownan First Nation by the Parks Branch as a part of the consultation process for the Chitek Lake Interim Protected Area (Wilson 2004).

The proposal from the Parks Branch is in line with the interests and wishes of the Skownan First Nation. Some years ago, the specific recognition of local Aboriginal interests and recognition of Aboriginal and Treaty rights and support for the notion of Aboriginal economic developments in a new provincial park would not have taken place. The change in policy is in part due to the community's leading role and involvement in the "Manitoba Protected Areas Initiative" together with a slight change in attitude in Manitoba and across Canada. Challenges of outside demands on the Chitek Lake Interim Protected Area remain to be resolved.

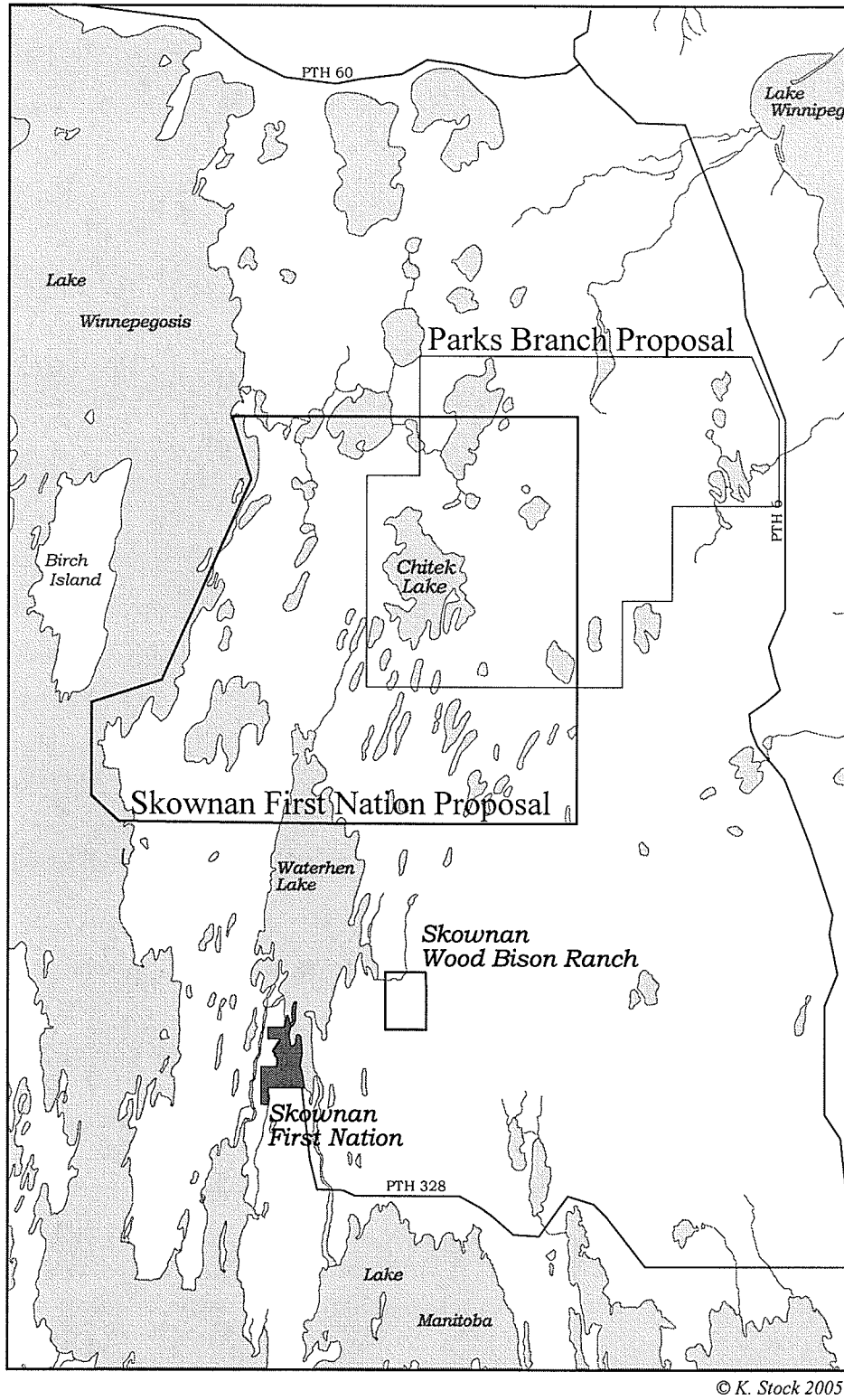
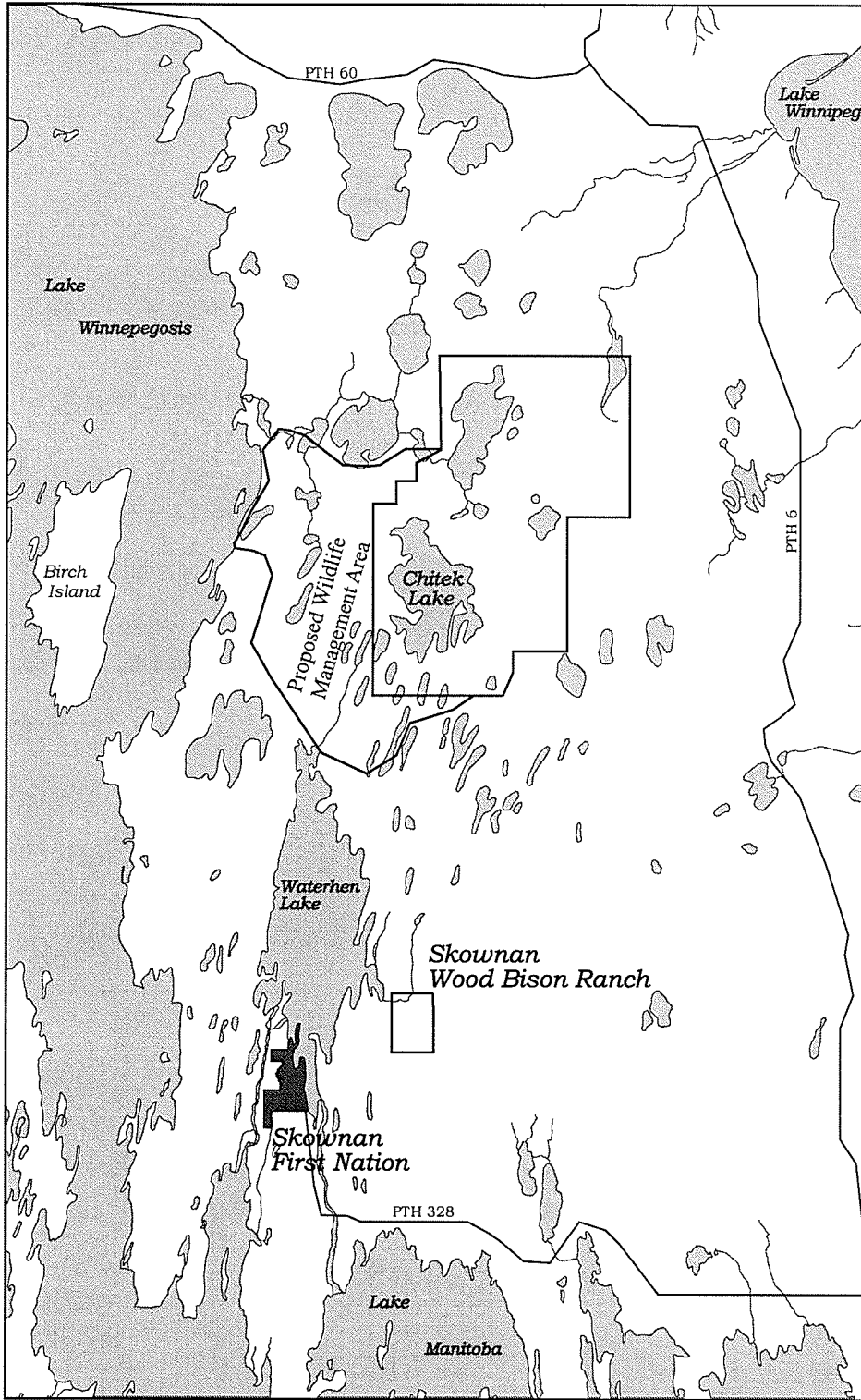
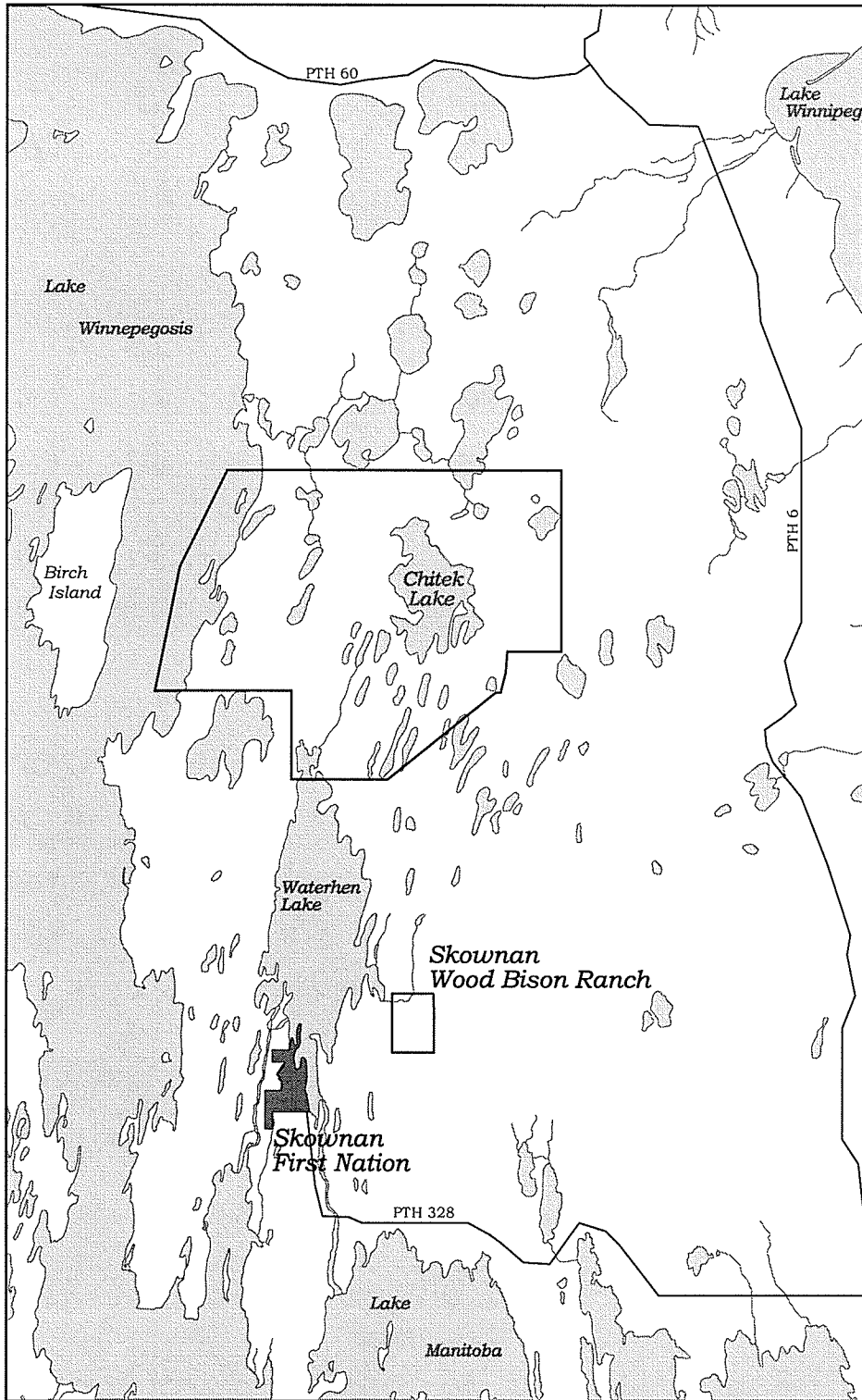


Figure 4: Chitek Lake - Preliminary Protected Area Suggestions



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Figure 5: Proposed Protected Area and Wildlife Management Area



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Figure 6: Chitek Lake Interim Protected Area

6.11 Commercial Fishing in the Skownan Resource Area: A Success Story

Licensed commercial fishing in the Skownan First Nation traditional land-use area has become an important economic activity. Most of the fishermen are from Skownan First Nation, a few from surrounding small communities like Rockridge and Mallard. Licensing is organized through the local fishermen's organization at Skownan First Nation. In the 1999/2000 season, the numbers were up to twenty-two fishermen with three helpers each, accounting for up to eighty-eight men working in fishing. In the 2001/02 season, the count was twenty-four commercial fishermen with helpers, amounting to almost 100 men working in commercial fishing. For the 2002/03 season, twenty-three fishermen were involved. In 1990, Skownan First Nation had only five or six commercial fishermen.

Since 1990, thousands of dollars worth of fish have been taken from lakes north of the Reserve. All lakes are stocked with pickerel fingerlings. On average two to three million fingerlings from the Department of Conservation, Fisheries Hatchery, are released annually into Chitek Lake and Inland Lake each. The cost of stocking the lakes, per year, amounts to approximately \$2000 (Campbell 2002, *pers. com.*). The Skownan First Nation Fishermen's organization has been contributing \$500 per year to this cost since 1999, the rest being covered by Manitoba Conservation, Fisheries. The fingerlings are delivered by chartered Beaver or Otter float planes (Campbell 2002, *pers. com.*). The development from fingerling to Freshwater Fish Marketing Board preferred fish size takes four years. An initial payment of approximately \$1.50 per pound of pickerel is paid to the fishermen by the Freshwater Fish Marketing Board and an additional final payment up to \$0.50 per pound is made after marketing, for a return of approximately \$2.00 per pound⁷ of pickerel on average (Campbell 2002, *pers. com.*).

⁷ \$4.40 per kg

In 1997, fingerlings were released in Crab Lake, Archie Lake, and the West Waterhen River. Fishing in Crab and Archie Lakes started in 2000 and has been profitable: 25,000 and 12,000 pounds⁸ of fish, respectively, were taken out of these two lakes in 2000 (Campbell 2002, *pers. com.*). In 2000, fingerlings were released in Rocky Lake (twenty-five kilometers east of Waterhen Lake) and Chisaki Lake (south of Timberwolf Ridge on the west side of Waterhen Lake). The Skownan First Nation traditional resource area has considerable perceived potential to increase its commercial fishing and related employment opportunities.

Increases in employment opportunity in the past eight years have been in fishing, trapping, and teaching (Rungay 2000). On average, a licensed commercial fisherman earns \$30,000 in a four to six month period, and receives employment insurance for the rest of the year. Despite the increase in fisheries employment, the unemployment rate continues to be eighty-five percent due to on-going population growth. If all part-time and full-time work is combined the unemployment rate drops to sixty-three percent. Most of the adult population relies on social assistance (Rungay 2000).

Road developments to Chitek Lake would give people from other First Nations and surrounding communities access to these lakes. 'Treaty poaching'⁹ would start immediately. Surrounding non-Native communities have demanded access rights to these lakes but were turned down by the Department of Conservation (Campbell 2002, *pers. com.*). Most of these lakes can only be accessed from Skownan First Nation over winter roads. This set-up protects the fish resources from outsiders.

⁸ 11,363.64 and 5,454.55 kg

⁹ Under the Natural Resources Transfer Agreement Act, all Treaty people are allowed to hunt anywhere on unoccupied crown land in the Province of Manitoba. Treaty hunters outside their traditional territory are seen as 'Treaty Poachers' in the traditional land-use area of another community.

Table 1: Chitek Lake Pickerel Data

year	number of licensed fishermen	pickerel (kg)	Value (4.40 / kg)
1994 / 95	18	2,749	\$ 12,095.60
1995 / 96	14	10,455	\$ 46,002.00
1996 / 97	closed season	0	0
1997 / 98	closed season	0	0
1998 / 99	20	115,689	\$ 509,031.60
1999 / 00	22	63,973	\$ 281,481.20
2000 / 01	16	38,020	\$ 167,288.00
2001 / 02	24	55,617	\$ 244,714.80
2002 / 03	23	2,072	\$ 9,116.80
Totals		288,575	\$1,269,973.00

Source: Freshwater Marketing Board, Winnipeg, (1995 – 2002) and Manitoba Conservation, Regional Office, Gimli (1994 – 2003).

For both tables, these numbers do not included Treaty fishing for local consumption. Treaty fishing data is not available. Chitek Lake commercial fishing data before the 1994 / 95 season was not made available.

Table 2: Inland Lake Pickerel Data

year	number of licensed fishermen	pickerel (kg)	Value (4.40 / kg)
1994 / 95	closed season	0	0
1995 / 96	closed season	0	0
1996 / 97	closed season	0	0
1997 / 98	closed season	0	0
1998 / 99	16	100,823	\$ 443,621.20
1999 / 00	22	28,089	\$ 123,591.60
2000 / 01	19	69,398	\$ 305,351.20
2001 / 02	23	35,869	\$ 157,823.60
2002 / 03	25	33,863	\$ 148,997.20
Totals		268,042	\$1,179,384.80

Source: Freshwater Marketing Board, Winnipeg, (1995 – 2002) and Manitoba Conservation, Regional Office, Gimli (1994 – 2003).

Inland Lake was opened for the first time to commercial fishing in the 1998 / 99 season.

6.12 Summary of Chapter Six

Between the mid-1890s and until the 1930s, major economic changes occurred in Manitoba that had significant impacts on Aboriginal livelihoods with reserve settlements, reserve agriculture, the development of a large-scale commercial fishery, and a lumber industry. With advanced technological developments like railroad, telegraphs, telephones, steamboats, gas boats and road developments, the dominant Native labour force was phased out. The prosperous time for the Interlake and West Lake areas in Manitoba at the beginning of the century gradually declined. Immigrant populations pushed Aboriginal people to the margins of the economy. By the 1950s and 60s, many northern Native groups were heavily dependent on hunting and trapping again (Ray 1996, p. 291).

In agreement with early anthropologists, senior government officials and courts “equated traditional culture solely with subsistence” (Ray 1996, p. 284). When early conservation legislation was introduced Aboriginal commercial interests were ignored. Governments granted out of season hunting, trapping, and fishing allowances for subsistence purposes only. More recent court decisions put a broader interpretation on subsistence. The divisions of commercial, sport and subsistence hunting and fishing activities are arbitrary government separations not accepted by First Nations people. They deny the full implementation of Aboriginal and Treaty rights” (Ray 1996, p. 284).

As far as people of the Skownan First Nation are concerned wildlife conservation and management has to benefit the local Native people first in accordance with Aboriginal and Treaty rights upheld by the Constitution Act of Canada (1984) and the Sparrow¹⁰ Supreme Court decision (Nepinak H. 1997, *pers. com.*). This is part of the Aboriginal worldview of Skownan First Nation. The establishment of the Skownan Fur Block created the fundamental building block for contemporary resource management

¹⁰ *R. v. Sparrow*, [1990] 1 S.C.R. 1075.

approaches for Skownan First Nation. The section on fishing is an example of how the natural resources - in particular animal populations – can be enhanced to economically benefit a First Nation community.

Aboriginal people across North America have been plagued by poverty with the eradication of the large bison herds and other large game animals, the end of the fur trade and the placement on reserves and the elimination of the resource development workforce. As Buckley (1992) states “poverty is itself a source of stress” (p. 24). It leads to dysfunctions, addictions and helplessness. This has been part of the fabric of life for reserve communities for several generations (Buckley 1996, p. 24). It has become a chronic condition and is difficult to deal with. There are no simple solutions for a complex situation with deep historical roots. Skownan First Nation is no exception to poverty-induced patterns on reserve. However, the traditional land-use activities ‘sponge’ a lot of this stress especially for men from Skownan First Nation. Without access to these activities the situation would be much worse. Hunting, fishing, trapping and gathering activities continue to be essential alternatives and / or additions to the welfare payments for Skownan First Nation. These activities form a large part of the community’s socio-economic fabric.

A major argument of Skownan First Nation is that if the community is given full access and co-management rights to the resources of the Skownan Resource Area, the community can benefit culturally, socially, and economically from the land. According to Kretch III (1999)

“native people have indeed often fought economic development when it is controlled by others and threatens their livelihood, and have taken a firm stand for conservation” (p. 217).

The establishment of the Skownan Fur Block, the Moose Management Agreement, the Chitek and Inland Lake Fisheries, the Chitek Lake Wood Bison Project, and the Chitek Lake Protected Area are most significant developments for a small reserve

community in order to achieve sustainable development and Aboriginal stewardship. The next chapter elaborates on the establishment of the Chitek Lake Wood Bison Herd and presents a population growth model.

Chapter VII

Wood Bison Model

7.1 Establishment of the Chitek Lake Wood Bison Herd

The Chitek Lake Wood Bison (*Bison bison athabascae*) herd was developed pursuant to a joint project involving Skownan First Nation and Manitoba Natural Resources. Since 1991, the Chitek Lake herd has contributed to the Canadian Wood Bison Recovery Program¹, whose goal is the establishment of four healthy free-ranging herds in Canada.

In 1981, negotiations began between scientists from the Canadian Wildlife Service, the Manitoba Wildlife Branch, and Skownan First Nation, concerning the development of a wild herd of wood bison in Manitoba. It was suggested to raise relocated wood bison in captivity, to prevent them from invading agricultural land to the south, and to release only the locally born progeny, 'imprinted' on the region, to the wild. Non-resident revenues from controlled hunting of the wild herd would redound to the economic benefit of the Skownan First Nation. An economic development component has rarely been contemplated in conjunction with a wildlife conservation project in Canada. The initial challenge to program development was the anticipated cost of \$1.5 million (Turbak 1988). It was considered imperative that a commercial economic component be incorporated, to justify the expenditure of such a large sum. As a result, a program with dual objectives emerged:

- a) to establish a captive wood bison herd, later to become commercial, owned and operated by Skownan First Nation; and
- b) to develop a wild herd from progeny of the captive herd, the wild herd to be managed co-operatively with Skownan First Nation and the Department of Conservation for the primary economic benefit of Skownan First Nation (Payne 1987).

¹ A program sponsored by federal, provincial and territorial governments.

A major difficulty in achieving approval of these objectives was that the wood bison was listed as an endangered species by both the 'Convention on International Trade in Endangered Species' (CITES) and the 'Committee on the Status of Endangered Wildlife in Canada' (COSEWIC). The idea of combining a commercial with a conservation interest was generally unacceptable to conservation agencies.

Established in 1983, the Skownan (Waterhen) Wood Bison Ranch was the first commercial wood bison ranch in the world. The first 34 bison, mostly males, arrived in February 1984. The animals were surplus from various zoos and parks throughout Canada. Initial reproduction rates were low. Eventually, the older bulls were culled, and, gradually, a more 'normal' age structure developed. Beginning in 1990, calves and young adult animals were sold as breeding stock throughout Canada. CITES restrictions prohibited international trade. Surplus animals, primarily older bulls, have been consistently utilized for local domestic consumption. The ranch was essential in the development of the wild herd. Both objectives have been successfully achieved (Stock 1996). Skownan First Nation was successful in combining commercial and conservation interests to the benefit of both.

In January 1991, Skownan First Nation developed a plan for release of wood bison at Chitek Lake. In March 1991, thirteen wood bison were released onto a small peninsula on the west shore of Chitek Lake. One three-year old bull returned to the compound by October 1991. The remaining twelve animals stayed in the Chitek Lake area and produced two calves in the spring of 1992. In January 1996, nine additional wood bison were released. The animals successfully bred in the natural environment and by 2002, approximately 150 animals ranged the Chitek Lake Area, where, until the present, they have been free from poaching and natural predators.

Since the establishment of the captive herd a special relationship between the First Nation and the Manitoba Wildlife Branch has developed. It is unique in Manitoba. From May 1999 until May 2000, both parties were working on the development of a five-year

management plan for the Chitek Lake Wood Bison Herd. The process stalled due to the political changes in the government and the First Nation.

7.1.1 The Wood Bison

The taxonomy of bison has been a controversial issue for many years, and classification to the sub-specific level remains a matter of debate. The National Recovery Team for Wood Bison has accepted wood bison as a subspecies based on morphological characteristics that distinguished them from plains bison (Wood Bison Recovery Team 2001). Recent studies have demonstrated that phenotypic characteristics of wood and plains bison (*Bison bison bison*) are genetically controlled and are not induced by environmental factors (van Zyll de Jong *et al.* 1995). Historically, wood bison differed from other bison populations with regard to multiple morphological and genetic characteristics. Genetic, molecular, and blood research is on-going (Wood Bison Recovery Team 2001).

Rhoads (1897) was the first to scientifically describe wood bison as distinct from plains bison by their larger size and darker colour. Some scientists consider the wood bison as an ecotype: the 'northern plains bison' (Geist 1993), but the new research leans towards the sub-species classification (Wood Bison Recovery Team 2001). The Western Provincial Wildlife Directors supported the scientific opinion that the wood and plains bison are to be treated as separate subspecies (Wood Bison Recovery Team 1987).

Wood bison possess the same general characteristics as plains bison except for some morphological differences. The wood bison has a tall, angular hump. The contour of the silhouette presents a more abrupt change at the hump. The hair on top of the head, around the horns, in the beard, and in the midventral neck area is significantly shorter and less dense in wood bison than in plains bison, at the same age. The head of the wood bison appears smaller, the horns longer, and the ears more noticeable. The beard of the

wood bison is smaller and more pointed. The long hair in the area of the 'chaps' on the front legs of the plains bison is basically absent in the wood bison. The tail of the wood bison appears to be longer and more heavily haired than that of plains bison. Plains bison have a massive appearance in the front quarters; the wood bison is taller and appears slimmer (Reynolds *et. al.* 1982).

7.1.2 History of the Wood Bison

Historically, the wood bison range was located in boreal forest regions in northern Alberta, southwestern Northwest Territories, northeastern British Columbia and northwestern Saskatchewan. It is certain that the Aboriginal people in these regions were knowledgeable of the natural range and habits of wood bison at the time. Samuel Hearne (Hudson Bay Company explorer), was the first European to provide a record of wood bison subsequent to his journey through the Lower Slave River region of the NWT in 1772 (Hearne 1795). Archaeological evidence indicates that, in the early history of North America, wood bison ranged further north and west. The range included north-central British Columbia, most of the Yukon Territory, and central Alaska from the southeastern boundary of the Bering Sea (Skinner and Kaisen 1947; van Zyll de Jong 1986). With additional subfossil evidence, the boundaries were revised to include a larger area in northern Alaska and Canada (Wood Bison Recovery Team 2001).

Oral tradition indicated that wood bison may have been present in some areas of the Yukon, Alaska (Wood Bison Recovery Team 1997), and Manitoba (Charette 1976) in the historic period. There is evidence that a bison similar to wood bison occurred in eastern Siberia during the mid-to-late Holocene (van Zyll de Jong 1993; Wood Bison Recovery Team 2001).

Post-glacially, 12,000 to 15,000 years ago, open steppe-like vegetation was suited to grazing animals like early Holocene bison (*Bison occidentalis* and *antiquus*). Their

appearance is considered to be similar to today's bison, albeit considerably larger (Skinner and Kaisen 1947; Guthrie 1970; McDonald 1981; Pielou 1991). The more recent wood bison (assumed to have evolved about 5,000 years ago) are considered to have been among the most common grazing animals at that time. As more and more of these areas became forested, bison habitat and bison numbers declined. Wood bison – the remaining bison in northern Canada – rely on open grasslands and fens within the boreal forest (Hoefs 1996).

Wood bison were never as numerous as plains bison, and were distributed unevenly throughout a vast area of the boreal forest. The total population of wood bison in 1800 was calculated at about 168,000 animals, based on an estimate of carrying capacity and the area of range occupied (Soper 1941). The validity of these estimates is questionable in the context of present scientific methods and could be largely underestimated. Raup (1933) explained

that it is possible to pass very close to a band of buffalo in the semi-open country without noticing them, and also the normal difficulties of travel in this formerly unmapped wilderness, it becomes evident that estimates of the actual numbers of the animals made by the usual methods are practically worthless
(p. 9).

Admittedly, considering the sparse human population, the vastness of the region, and the lack of detailed aerial surveys, many herds may have gone undetected (Sawatzky 2002, *pers. com.*)

The decline coincided with the rapid demise of the plains bison between 1840 and 1900 (Raup 1933). The most rapid decline took place after 1860 (Soper 1941). By 1875, the wood bison had disappeared throughout much of its original range. During the years of 1887 to 1888, wood bison were observed in small numbers (Schultz 1887 and 1888). In 1891, only 300 wood bison remained in an area between Great Slave Lake and the Peace-Athabasca Delta (Ogilvie 1893). The population reached an estimated low of

approximately 250 during 1896-1900 (Soper 1941). After 1900, wood bison were occasionally observed throughout their historical range. The specific cause of the decline in wood bison is unknown, but anthropogenic dynamics such as the fur trade and the introduction of firearms as well as several severe winters may have been contributing factors (Raup 1933; Yukon Government 1998). Several references to “excessively” (Raup, p.19) severe winter conditions with deep snow, late spring ice conditions and drownings can be found in Raup (1933, p. 19-20). According to Raup (1933) “no systematic hide or meat hunts have ever been made” (p. 21) in the territory occupied by wood bison due to difficult terrain and dense vegetation cover. The best collections of wood bison sightings by travelers and residents at the turn of the century were published by Allen (1900) and Preble (1908).

Early conservation efforts included protection through legislation in 1877 and 1893. In 1922, Wood Buffalo Park was established in northern Alberta. From 1925 to 1928, 6673 plains bison were introduced to Wood Buffalo Park from Wainwright, Alberta, resulting in hybridization of the 1500 to 2000 wood bison. Two cattle diseases – tuberculosis² and brucellosis³ – were introduced with the plains bison. By 1940, it was thought that the wood bison had become extinct through hybridization (Wood Bison Recovery Team 1987). In 1957, a small remnant herd was discovered in northwestern Wood Buffalo National Park.

In the early 1960s, the wood bison was threatened again, this time by an outbreak of anthrax⁴ in the park. From this herd, 18 animals were relocated to an area north of

2 A disease caused by *Mycobacterium bovis* that can affect bison and other wildlife as well as humans. It affects the lymph system, bones and lungs (Hoefs 1996). Tuberculosis causes at least a fifteen percent reduction in productive capacity in terms of feed efficiency, weight gain, and milk production (Wood Bison Recovery Team 1987).

3 A bovine disease caused by *Brucella abortus* that can affect reproduction in bison, cattle and sheep (Hoefs 1996).

4 An acute infectious, contagious disease, characterized by fever, caused by *Bacillus anthracis*. Virtually all warm-blooded animals and humans can contract this disease which occurs world wide. Cattle and bison may become infected when grazing neutral or alkaline, calcareous soils considered to be ‘incubator areas’ for the organisms (Lee 1990).

Great Slave Lake which is now the Mackenzie Bison Sanctuary, in 1963, to establish a wild herd of healthy wood bison. In 1965, 24 wood bison were taken to Elk Island National Park to establish a breeding herd for subsequent relocation (Wood Bison Recovery Team 1987). By 1968, the wood bison in Elk Island National Park experienced disease and reproduction problems. In 1969, the herd was reduced to 31 animals through a test-and-slaughter program. Nonetheless, by 1976, the herd had increased to 111. Four calves were shipped to Calgary Zoo, the first transfer from Elk Island National Park for the purpose of establishing a captive breeding herd (Wood Bison Recovery Team 1987).

In 1987, a 'Bison Disease Task Force' was established to evaluate the problem of brucellosis and tuberculosis in bison in northern Canada. The major concern is the possible spread of these diseases to humans, domestic animals, and other wildlife species. About fifty percent of the herd has one or both diseases (Wood Bison Recovery Team 1987). As of 2002, no solution has been found to deal with the diseased hybrid bison in Wood Buffalo National Park. Further research into the diseases has been proposed (Wood Bison Recovery Team 2001).

7.1.3 The Recovery Program

In 1975, the wood bison recovery program was formally initiated by federal, provincial, and territorial governments, with the objective of re-establishing free-roaming herds of wood bison. It was decided to establish a minimum of three free-ranging, self-perpetuating populations of wood bison in areas of historic range. This plan was upgraded to at least four geographically separate populations, disease-free, with a minimum of 400 bison each, or four populations of at least equal biological viability with no foreseeable threat to wood bison habitat at any of the selected sites. The Waterhen/Chitek Lake area in Manitoba was considered suitable for a release program. The primary goal of the Wood Bison Recovery Plan is

to reestablish at least four discrete, free-ranging, disease-free, and viable populations of 400 or more wood bison in Canada, emphasizing recovery in their original range, thereby enhancing the prospects for survival of the subspecies and contribution to the maintenance of ecological processes and biological diversity (Wood Bison Recovery Team 2001, p. 27).

The establishment of captive breeding herds in zoos and wildlife parks was a secondary objective of the program to preserve the gene pool. Captive breeding herds were established in seven zoos and wildlife parks (Wood Bison Recovery Team 1997).

Since 1978, several wild herds have been established. Most of the release projects were stocked from Elk Island National Park, together with surplus animals from zoos (Wood Bison Recovery Team 1987). An attempt, in 1978, to relocate wood bison from Elk Island National Park to Jasper National Park was not successful. Despite the presence of suitable habitat within the park, most of the animals wandered some 150 km north into an area of agricultural development near Grande Prairie, Alberta. The animals were subsequently rounded up and returned to Elk Island National Park (Wood Bison Recovery Team 1987). Relocation of wood bison to the Nahanni district (NWT), in 1980, was more successful than the Jasper transfer. However, the original group of 28 animals fragmented into several smaller groups, and one herd of eight animals moved south into British Columbia (Reynolds 1982). Release projects have been undertaken in the Nahanni-Liard district (NWT), Hay-Zama Lake area (Alberta), Nisling River region (Yukon), Chitek Lake area (Manitoba), and the upper Liard River area (British Columbia).

The numbers of wood bison increased from less than 200 in 1959, to 450 in 1978, and to more than 2300 in 1987 (Wood Bison Recovery Team 1997). In 1997, it was estimated that the total number of wood bison in disease-free, free-roaming herds in Canada was about 1,800. In 1999/2000 there were 2828 wood bison in six free-ranging, disease-free herds; 708 in six captive breeding herds, including zoos, and about 2900 in four diseased, free-ranging herds. There were also 500 to 700 wood bison on 45 or more

private ranches in Canada. However, privately owned herds are not considered part of the recovery program. In addition to the numbers cited above, there are approximately 2,700 to 2800 diseased hybrid bison in five herds in or near Wood Buffalo National Park (Wood Bison Recovery Team 2001).

Wood bison herds are categorized as: free-ranging herds free of cattle disease, primarily tuberculosis, brucellosis, and anthrax; free-ranging herds afflicted with tuberculosis, brucellosis, and anthrax; captive breeding herds under public ownership; and captive herds under private ownership with conservation objectives (Wood Bison Recovery Team 2001).

Free-ranging, disease-free herds:

The Mackenzie and Yukon herds, each with 400-or-more animals, presently meet the minimum objective of the recovery program. In recent years, the Mackenzie herd has declined from an estimated high of 2431 animals (Gates 1993) in 1989 to around 1328 ± 138 animals in 1996 (Wood Bison Recovery Team 1997). Loss of habitat due to flooding resulting in competition for grazing on remaining sedge and grass land, is considered to be the main reason for the decline (Gates 1993, Larter *et al.* 1993). In March 1998, its population was estimated as 1908 ± 201 and is considered 'stable-to-increasing' (Wood Bison Recovery Team 2001). The Yukon herd numbered about 350 in March 1998, and 450 in late winter 1998/99 (Wood Bison Recovery Team 2001). The Yukon Bison Management Plan outlines a long-term strategy to maintain a herd of approximately 500 wood bison (Yukon Government 1998).

The Nahanni/Liard population was estimated at 65 to 70 animals in 1996. It was supplemented with 61 additional bison in March 1998. A total of 160 was estimated for 1998 (Wood Bison Recovery Team 2001). Lack of sufficient habitat may prevent this herd from reaching the desired viable size. It is considered that the Nahanni and

Nordquist populations are likely to merge in the future, eventually reaching a population of 400 or more (Wood Bison Recovery Team 2001). The Hay-Zama Lake herd numbered about 100 in 1996 (Wood Bison Recovery Team 1997) and 130 in the 1999/2000 winter season (Wood Bison Recovery Team 2001). The area has the potential to support 400 to 500 bison. Its close proximity to Wood Buffalo National Park may present problems in keeping the herd disease-free. The Chitek Lake area (Manitoba) is estimated to be capable of supporting in excess of 200 (Payne 1998, *pers. com.*). In 1995, 18 wood bison were released in the Nordquist Flats area (B.C.). It was estimated that this area could carry 400. Thirty-six bison were counted prior to calving in 1996, and in 1999 the herd was estimated to include 60 animals (Wood Bison Recovery Team 2001).

Public captive breeding herds:

The Elk Island National Park (EINP) herd has played a key role in the recovery of wood bison in Canada. Directly or indirectly, it provided the stock for the establishment of six wild populations. It also contributed animals to five co-managed captive herds, and seven zoo herds. The herd is semi-wild, fenced in a 65 square kilometer area. In 1971, after an intensive four-year disease eradication program, the herd was declared free of bovine brucellosis and tuberculosis. In March 1999, wood bison were sold to the private sector for the first time. The herd is kept to a size of 250 to 350 bison because of range limitation (Wood Bison Recovery Team 2001).

The Hook Lake Recovery Project (Northwest Territories north of Wood Buffalo National Park) was initiated in 1991 by the Deninu Kue' First Nation to restore a disease-free herd. In May 1996, 20 bison calves, another 20 in May 1997 and 22 in May 1998, were captured from the wild and moved to an isolation-and-treatment facility at Fort Resolution. The animals are tested on an on-going basis for brucellosis and tuberculosis. A number of animals had to be put down because of positive testing for a number of

diseases as well as due to some farm accidents (like gorging). In April 1999, the count was 58, disease-free. Seven calves were born in 1999, bringing the total number to 65 (Wood Bison Recovery Team 2001).

The most recent wood bison reintroduction (with 18 animals) took place in northeastern British Columbia in 1996, into an oil-and-gas development area near Ettithun Lake (Wood Bison Recovery Team 2001). This project was terminated in 1997: the animals became a hazard to traffic on the existing all-weather road. They had also wandered approximately 100 kilometer to an agricultural area, where they mingled with a group of plains bison that had escaped from a ranch (Wood Bison Recovery Team 2001). A revised Ettithun Bison Area (EBA) Management Plan has been developed. An 850 hectare enclosure was fenced in the winter of 1998-99 and in March 1999, 19 wood bison were translocated from Elk Island National Park (EINP) to the EBA area. In February 2000, 24 more were translocated to EBA from EINP. Future plans include enlargement of the enclosure to 1850 hectare, and allowing the herd to become free-ranging after calves born to the captive herd attain sufficient maturity (Wood Bison Recovery Team 2001).

Free-ranging herds, exposed to or infected with tuberculosis and brucellosis:

Wood Buffalo National Park (WBNP) was established in 1922. It harbored a wood bison population of 1500-2000. Between 1925 and 1928, more than 6000 plains bison were introduced to the park from east-central Alberta. The population increased to 12 000 and remained near this level for several decades. The population then declined to 2105 in 1997 (Wood Bison Recovery Team 2001), due to a combination of factors, including loss of habitat due to flooding, increased wolf predation, the population having reached the climax growth point and so on. Five sub-populations exist throughout

WBNP. The herds are infected with bovine tuberculosis and brucellosis (Wood Bison Recovery Team 2001).

The Slave River Lowland (SRL) herd (Northwest Territories, northeast of WBNP) counted 2500 wood bison in 1970. The numbers have declined in recent decades and it is estimated that there are about 600 in the entire SRL area. The herd is infected with bovine tuberculosis and brucellosis (Wood Bison Recovery Team 2001).

Little is known about the Caribou Mountains-Lower Peace area herd (southwest corner of WBNP, Alberta). Heavy hunting in the area west of the park is a limiting factor in herd growth. In November 1996, 51 bison were counted in two different groups. The herd is considered to be infected with bovine tuberculosis and brucellosis. Limited testing data is available (Wood Bison Recovery Team 2001). A second bison population ranges in the boundary area between WBNP and Wentzel Lake, north of the Peace River. Estimates range from 25 to 110 animals. Movement, habitat use, and disease status of this population are being investigated (Wood Bison Recovery Team 2001).

Privately owned herds with conservation objectives:

The Waterhen herd, represented by animals from Elk Island National Park and the Toronto Zoo (since 2000 Skownan), was established in 1984. In June 1989, the first commercial use of wood bison occurred with the sale of several animals for breeding stock and the slaughter of two bulls for the commercial market. Numbers are maintained at about 150.

In March of 1990 and 1991, surplus wood bison from EINP and from the Banff paddock display herd were transferred to the Hanging Ice Bison Ranch (30 km north of Fort Smith, NWT). Most of the animals were relocated to the Edjericon Bison Ranch near Fort Resolution (NWT), where responsibility for these animals was transferred to the Deninu Kue First Nation. The breeding herd included 58 cows and 10 bulls. The

ranch is economically self-supporting and the operation is primarily commercial (Wood Bison Recovery Team 2001).

In cooperation with Alberta Environmental Protection, Syncrude Canada Ltd. and the McKay First Nation, a breeding herd was established on oil-sand lease property north of Fort McMurray in 1993. EINP provided the stock for this project. Over the term of the Syncrude project, approximately 1,800 ha of mined-out land are supposed to be restored to grassland. The project was designed to determine if rehabilitated areas could support forage crops and a productive bison herd. The results of the five-year study were positive, and the goal is to establish another free-ranging wood bison population. The close proximity to WBNP (130 km to the southeast) is a limiting factor to keeping the herd disease free (Wood Bison Recovery Team 2001). No population numbers for this herd were given in the recovery report.

In 1996, 36 free-ranging wood bison which posed a hazard along the Alaska Highway west of Whitehorse (Yukon) were captured and placed on the LaPrairie ranch, some 70 km west of Whitehorse. An agreement was reached with the owner to return the same number and sex ratio to the government for conservation purposes within five years. In 1998, the herd numbered between 45 and 50. Ownership of the animals is currently under dispute (Wood Bison Recovery Team 2001).

Planned release projects:

The Alaska State Government is contemplating the reintroduction of wood bison in the Yukon Flats area northwest of Dawson, with a population of at least 500 head (Hoefs 1996). Some policy issues need to be resolved before this project can be implemented (Wood Bison Recovery Plan 2001). The existence of free-ranging plains bison at four locations in Alaska and in the Pink Mountain area of British Columbia constrains the recovery of wood bison in a significant portion of their original range (Wood Bison Recovery Team 2001).

The Government of the Republic of Sakha (Yakutia) in Russia has advanced a proposal to restore and enrich biodiversity in the Pleistocene Park with the introduction of wood bison. The Wood Bison Recovery Team (WBRT) supports this effort to secure the survival of disease-free wood bison in geographically separate populations. Financial support for the transfer of wood bison to Siberia is being sought (Wood Bison Recovery Team 2001).

In general, rehabilitation and repopulation efforts have been successful. The expansion of free-ranging wood bison herds is limited by the existence of free-ranging plains or hybrid bison, by diseases in and around Wood Buffalo National Park and by further agricultural and forestry developments. The ultimate goal was and still is a level of success which allows for the removal of wood bison from the list of endangered wildlife (Wood Bison Recovery Team 2001).

7.1.4 Vacant Ecological Niche

Grass and sedge meadows are scattered throughout the boreal forest. Wood bison forage there almost exclusively during the winter. Slough sedge (*Carex atherodes*) is the most important plant in the diet of a wood bison, followed by reed grass (*Calamagrostis* ssp.). These two forages contribute more than 70 percent of the bison diet at all seasons (Reynolds *et al.* 1982). No other native herbivore has evolved to compete for use of this niche in North America. With the disappearance of wood bison from most of their historic range during the last century, these meadows had become an ecological niche vacant of grazing animals. With the recovery of the wood bison, this niche is being reoccupied (Wood Bison Recovery Team 1987). The fact that these wet grass-and-sedge meadows are essentially not used by other big game was initially recognized by Clark (1944) and Soper (1950), who first recommended the reintroduction of bison. To a lesser extent, wood bison also feed on dry grassland sites (Hoefs and Reynolds 1989). From a

study in the Mackenzie Bison Sanctuary (Larter and Gates 1987), it appears that bison exhibit more versatility in food habits than expected from previous reports. Wood bison consumed forty-seven percent shrubs (mostly willow leaves), thirty-six percent sedges, and fifteen percent grasses in May. By mid-July, sedges had increased to seventy-six percent and shrubs represented less than twenty percent of the diet. The autumn diet was composed of some forty-five percent grasses, thirty percent sedges, and twenty-one percent lichens. The high proportion of lichens in the diet was surprising (Wood Bison Recovery Team 1987). In a study in 1990, of the Nisling River wood bison herd in the Yukon, it was observed that wood bison preferred wet sedge and sedge-shrub meadows (Greenfield 1990). The forested areas are used for shelter and calving (Yukon Government 1998). No vegetation evaluation has been conducted for the Chitek Lake area to predict the carrying capacity for wood bison.

In the Yukon, concerns were expressed that an expanding bison herd may negatively impact other wildlife, particularly caribou and moose. The scientific literature and consultation with bison managers did not generate information to support this claim. Detailed studies are lacking (Hoefs 1996). Moose tend to be solitary and occur at relatively low densities throughout wood bison ranges. Moose and bison generally do not compete for food because of different dietary preferences (Wood Bison Recovery Team 1987). Preliminary results from a study in the southern Yukon indicate that there is very little niche overlap between wood bison and woodland caribou (Wood Bison Recovery Team 2001). The same is expected for woodland caribou and wood bison in the Chitek Lake area. However, the addition of wood bison will become a key element in the interplay between indigenous large mammals (Gates and Larter 1990; Larter et al. 1994). For example, the interaction of elk and wood bison has been observed at Chitek Lake (Huhtala 1998, *pers. com.*).

7.1.5 History of Wood Bison in Manitoba

Wood bison may have been present in Manitoba in the past. In 1873, J.W. Taylor (US Consul in Winnipeg) reported that the wood buffalo was very numerous in the forests surrounding Lakes Winnipeg and Manitoba (Roe 1970). An account by Louis Goulet (a Manitoba Métis) describes wood bison in Manitoba in the late 1800s as follows:

Finally, there were the wood buffalo, less numerous and much darker in colour, some of them even black. These were the heaviest of them all. They stayed in the woods along the Saskatchewan River and around Lakes Winnipeg, Manitoba, Dauphin and Winnipegosis. They could also be found so far north as the Liard River, which pours into the Mackenzie across from Fort Simpson on the other side of the Alberta border⁵. ... The wood buffalo were more difficult to hunt than all the others because they would scatter at the slightest sign of danger and plunge deep into the bush (in Charette 1976, p. 20).

Tom Lamb (1956) made the following reference to bison bones found north of Grand Rapids at Davidson Lake, Red Rock Lake and Buffalo Lake (Manitoba):

Deaf John Patchense found buffalo skeleton in fair shape at Davidson Lake five miles from Williams Lake. Henry Ross brought me a dandy big head he found in Red Rock Lake, which is close to Cedar Lake not far from Moose Lake; possible here is where a bunch of them died during a bad winter like our jumps [white-tailed deer] and wild horses did this winter (p. 1).

Examination of Manitoba bison skulls has not provided scientific evidence to support the past presence of wood bison in Manitoba (van Zyll de Jong 1986). However, only a few skulls from Manitoba have been examined for subspecies classification. New findings of historical bison specimens are needed for further taxonomic studies to determine if and where wood bison occurred in Manitoba. Despite inconclusive evidence, it was decided to establish a wild herd of wood bison in Manitoba because the northern Interlake region exhibited habitat characteristics not unlike those occupied by

⁵ The Alberta border was established in 1905. The interview of Goulet (in retirement) by Charette was conducted around or shortly after that time. The exact date of the recording was not mentioned in the book.

wood bison in other parts of Canada. Wood bison utilize a niche – the wet sedge and coarse grass meadows scattered through the boreal and mixed-wood forests. It is suggested wood bison will contribute in maintaining the ecological integrity of these sedge and grass environments in the Chitek Lake area (Payne 1998, *pers. com.*).

7.1.6 Wood Bison Release at Chitek Lake

In June 1988, the first attempt was made to release wood bison from the captive herd to the wild. Fifteen wood bison (seven females and eight males) were released directly north of the compound after being kept in isolation for several years in the northern part of the enclosure. It was hoped that the animals would move north to the Chitek Lake area; they moved south into agricultural land, however. By the end of the summer, they were rounded up and returned to the captive herd.

In early 1991, Skownan First Nation developed a plan for a release of wood bison at Chitek Lake. The release site was selected by Raymond Marion (manager of the ranch) and approved by the Manitoba Wildlife Branch and the Canadian Wildlife Service. In March 1991, the entire wood bison herd was tested for brucellosis and tuberculosis. A negative result indicated that the herd was free of these diseases. Thirteen wood bison (six females and seven males) were loaded on two cattle trailers and transported via winter road (following along an old wagon trail) to a holding pen on the west side of Chitek Lake. The intent was to hold the animals until past 'ice break-up' so that they could not walk across Chitek Lake and head south towards the compound. An early spring thaw resulted in a correspondingly early release. The animals were provided with alfalfa hay and water until April 18, 1991 (Marion 1998, *pers. com.*). Experience from other release attempts (Jasper, Nahanni and Waterhen) indicated that bison, when released directly to the wild, often wander long distances from the release site and/or end

up in areas where they are not wanted. Holding corrals with locally-born offspring have proven to be successful, with the free animals remaining nearby (Hoefs and Reynolds 1989). These methods were largely pioneered by Payne in Manitoba (Payne 1987).

The growth and movement of the herd were monitored by staff from Manitoba Conservation (formerly Natural Resources) and Skownan First Nation. Herd movement and location were observed by aerial survey with radio transmitter signals and direct observation. Four released animals were equipped with radio transmitters. The observations revealed that the released wood bison stayed mainly in the area of the release site, with sporadic movements of up to fifteen kilometers in all directions. On September 14, 1991, only 12 animals were observed on the west side of Chitek Lake. The apparently missing animal, a three-year old bull, was observed back at the compound on October 4, 1991. On July 13, 1992, the released wood bison were seen near the release site with two calves - the first observation of reproduction in the Chitek Lake Wood Bison Herd. Six calves were born in 1993, and five in 1994. In October 1995, the herd population was confirmed at 31 wood bison indicating that six calves were born in 1995. This may have been the last opportunity to obtain an exact count on the animals. The herd split into three smaller groups. In addition some males roamed about by themselves or in pairs. Neither environment nor herd behaviour favor accurate counts. Population estimates for the first five years after the release are therefore considered more reliable than those of later years (Hoefs 1996).

7.1.7 Second Release

On January 17, 1996, nine one-and-a-half-year-old wood bison, seven females and two males, were released at Chitek Lake, bringing the total number to forty animals. The animals were held in a fenced corral and fed hay for several days prior to their release on January 20, 1996. It was hoped that the resident wood bison would quickly

accept the new animals into the herd (Whaley 1996). Hay bales were placed near the release site to attract the wild herd. Whereas the wild herd stayed in the vicinity of the release pen, the two groups did not appear to establish close contact. On January 24, several days after the release, the new bison were located, through radio tracking, on the east side of Chitek Lake, eight kilometers away from the release site (Whaley 1996). Local observation revealed that the animals crossed the lake immediately after the release. They stayed in a small area on the east side for about one week, then back-tracked to the release site (Marion 1998, *pers. com.*; Huhtala 1998, *pers. com.*). On January 28 and February 5, 1996, a larger group of bison was observed near the release site. Radio location of the yearling with the transmitter confirmed that the two groups had assimilated (Whaley 1996). The calf count for 1996 was estimated at eight. In the summer of 1996, one mature bull was found in the hay fields at Salt Point about 50 kilometer south of Chitek Lake. The bull was destroyed upon request from local ranchers to remove the animal. In 1996, approximately forty-seven wood bison remained at Chitek Lake.

In 1997, a total of eight calves were observed (Roberts 1998a). Two animals were reported dead. The carcass of a younger bull was found near the release site at the end of April. It was not possible to determine the cause of death. The carcass of a mature bull was found in a marshy area on the northern shore of Chitek Lake at the beginning of June. It was speculated that the bull broke through the ice during the spring thaw and was washed onto the shore. This would account for fifty-three wood bison in 1997. One ground observation indicated fifty-six animals (Huhtala 1998, *pers. com.*). For 1997, approximately sixty wood bison were estimated. From 1997 on, the count has become difficult since the animals split up into subgroups and are no longer together as one single herd. The observed and counted numbers are always lower than the actual numbers. From 1997 on, estimated total herd numbers are given in table three.

On March 16, 1998, during a ground survey, thirty-nine adults and six calves in two groups were encountered and reported to be in a healthy condition. On April 1, 1998, a helicopter survey counted twenty-eight animals near the release site and two bulls on the east side of Chitek Lake. On November 27, 1998, fifty-three bison, forty-one adults and twelve calves, were sighted at seven locations in the immediate vicinity of Chitek Lake (Roberts 1998b). Also in November of 1998, two separate groups of wood bison (approximately fifty and twenty) were observed in two locations by hunters. For 1998, the total herd number was estimated to be around seventy wood bison.

On August 18, 1999, an aerial census recorded fifty-seven bison, including seven calves. The animals proved difficult to monitor because they quickly moved into thick bush cover. Heavy use of salt blocks, placed for them by the provincial Department of Conservation, was also recorded during this flight (Collins 1999). One bull that had come south along the west side of Waterhen Lake was shot by a member of the Skownan First Nation in the fall of 1999. It was a precaution so that the animal would not wander into the hay fields further south or attract other bison. The meat was distributed in the community. For 1999, it was thought that there were approximately eighty wood bison in the Chitek Lake area.

During a survey flight on January 6, 2000, sixty-nine animals, including at least twelve calves, were observed to the northeast of Chitek Lake. They consisted of three groups of, respectively, eleven (two calves), twenty-two (four calves) and thirty-five (six calves) animals. One single bull was spotted at the release site. On January 26, 2000, a group of fifty wood bison was viewed feeding at the release site. A single older bull was observed between Chitek Lake and Waterhen Lake. In the fall of 2000, one wood bison was accidentally shot during moose hunting season. It was not possible to establish whether it had been a bull or a cow, but it is more likely that it was a single bull, since cows stay in or around groups. It was estimated that there were approximately 100 wood bison in the Chitek Lake area in 2000.

During a flight in 2001, sixty-five wood bison were sighted. During ground surveys, sixty-five (February 2001) and seventy-three (March 2001) wood bison were sighted. The seventy-three animals comprised five discrete groups. Sixteen yearlings and six mature bulls were identified. Identification of yearlings was difficult at times because of the similar size and coloration of yearlings and adults. At the site where fuel is stored for fire-patrol helicopters near the release site, twenty-six animals, including five yearlings, were seen. At the release site, twenty-five animals, including six yearlings, were counted. On the west shore of the lake two adult bulls, and in the south-west corner of the lake, three adult bulls, were observed. All animals were in good condition. Fresh bison sign was observed along the north and north-east shore of Chitek Lake (Collins 2001). In the summer of 2001, a group of fifty bison were observed from a helicopter fire-patrol flight. The group contained twenty newborn calves. It was estimated that there were approximately 120 in 2001.

During a survey flight on March 15, 2002, 107 wood bison were counted within a two-to-three mile radius around Chitek Lake (Collins 2002, *pers. com.*). Some animals in the southeast corner were missed. It was estimated that the total was 125. In March 2002, one bull was found dead at the southwest corner of Chitek Lake by a local land-user. It is assumed that another animal with a radio collar whose signal read 'dead' on the March 2002 flight was, in fact dead. In May 2002, during fire-flights, two counts were made: twenty wood bison with five newborn calves and fourty animals with ten newborn calves near the release site (Collins 2002, *pers. com.*). For 2002, an estimate of 150 animals, including newborn calves, was established.

For 2003, no bison survey flights took place. In February 2003, the sighting of a calf with orange hair was reported. It was estimated that the calf would have been born in the middle of December 2002. This is the first encounter of a winter bison birth in the Chitek Lake area (Collins 2003, *pers. com.*) On a ground survey, seventy to eighty wood bison were counted in March 2003. For 2003, approximately 200 animals were estimated

(Collins 2003, *pers. com.*). As of 2003, no wolf predation on wood bison has been observed.

The following table summarizes the two bison releases as well as the observed numbers of bison and calves from 1991 to 2003. Where two or more observations per year were made and numbers counted, two or more rows of information per year are displayed.

Table 3: Wood Bison Release and Counts at Chitek Lake

year	numbers at start of year	yearling (Jan.- March) calves (May-Nov.)	2 nd release	losses	estimated numbers at end of Dec.
March 1991	13	0		1 bull	12
July 1992	12	2			14
1993	14	6			20
1994	20	5			25
Oct. 1995	25	6			31
Jan. 1996	31	8	9	1 bull	47
1997	47	8		2 bulls	
end of year	56	nd			~ 60
March 1998	39	6			
Nov. 1998	41	12			
Nov. 1998	70	nd			
end of year					~ 70
Aug. 1999	50	7		1 bull	
end of year					~ 80
Jan. 2000	57	12			
Jan. 2000	51	nd			
Fall 2000				1 bull / cow	
end of year					~100
Feb. 2001	65	nd			
March 2001	57	16			
July 2001	30	20			
end of year					~120
March 2002	125	nd		1 bull	
May 2002	20	5			
May 2002	40	10			
end of year					~150
Feb. 2003	nd	1 calf in orange			
March 2003	80				
end of year		nd			~200

nd = no data

7.2 Objectives of the Wood Bison Model

The objectives of this aspect of the research project were to

- establish a population projection model with existing data for a period of 10 years (1997 – 2007); and
- to map existing and potential bison range in the Chitek Lake area.

7.2.1 Methodology of the Wood Bison Model

The framework of this part of the dissertation is also set in the community-based research methodology. The findings of this investigation were made available to Chief and Council of the Skownan First Nation for use in the development of the Chitek Lake Wood Bison Management Plan.

7.2.2 Methods

The following methods were applied:

- a) Application of a numerical wildlife model with *Analogy* (deterministic model):

Analogy was developed by Manitoba Natural Resources “to give wildlife managers a fast and flexible tool for forecasting the dynamics of wildlife populations” (Johnson 1990). *Analogy* defines a population by way of ‘parameters.’ They include the starting population, age structure, and age-specific natality rates. Once the population is defined, one can create up to 25 separate ‘factors’ that affect the population during its annual reproductive cycle. The factors can result in the removal or addition of animals, including postnatal mortality, predation mortality, licensed sport harvest, road kills, diseases, stocking programs, immigration, and others. Each factor can be turned on or off for each year in the simulation. After all parameters and factors are specified, the model is run and the results are tabulated (Johnson 1990).

Analogy is a deterministic computer modeling program and does not involve any stochastic processes. Random processes cannot be incorporated in the simulation (Johnson 1990). A starting population of a minimum of 200 animals is required (Knudsen 1998, pers. com.). For models with starting populations below 200 animals – as it was the case with this model – the numbers were multiplied by 10 for a second run of each scenario (for example, $19 \times 10 = 190$ males, $26 \times 10 = 260$ females and $8 \times 10 = 80$ calves). The tabulations were compared for rounding errors, and corrections were applied in the population numbers with less than 200 animals. The total, after calving, for each year tallied up correctly, but the computer displayed ‘fractional’ animals (1.8 cow, bull or calves). The indicated corrections were made, the results transferred to Excel, where tables and graphs were produced.

b) Interviews with traditional land-users of the Skownan First Nation:

Three interviews with traditional land-users were conducted in February 1998, to determine existing and potential wood bison habitat in the Chitek Lake area. The technique of the map biography (Stock 1996) was applied. For the interviews, one mylar sheet was affixed over a topographic map (1:250,000) that was mounted on a 76 cm x 52 cm foam-core board. The information of existing and potential wood bison range was recorded with permanent markers on the mylar. This data was transferred to a digital topographic map in ‘Corel Draw.’

7.3 The Chitek Lake Wood Bison Model

In this model the emphasis is on the number of individuals and the processes leading to changes in the number of individuals. The fundamental ecological fact of life is expressed in

$$N[\text{now}] = N[\text{then}] + B - D + I - E$$

The number of a particular organism presently occupying a particular site of interest ($N[\text{now}]$) is equal to the number previously there ($N[\text{then}]$), plus the number of births between then and now (B), minus the number of deaths (D), plus the number of immigrants (I), minus the number of emigrants (E). It can also be expressed as

$$N[\text{future}] = N[\text{now}] + B - D + I - E$$

where B , in this case, is the number of births between the present and some time in the future, and so on (Begon *et al.* 1996).

7.3.1 Biological Observation of Bison Populations

The age at which cows first conceive varies among locations, and often within herds from the same region. Pregnancy rates vary with age, with high reproductive rates between the ages of three and fifteen years of age (Reynolds *et al.* 1982). A decline in female fertility is recorded in bison between twelve and fifteen years of age (Wood Bison Recovery Team 1987). Few bison cows conceive as yearlings, giving birth to a calf at two years of age. In Wood Buffalo National Park, five percent of yearling cows, thirty-eight percent of the two-year-olds and sixty-five percent of the three-year-olds were breeding (Fuller 1961). In the Lake Claire herd south of Wood Buffalo National Park, fifty-nine percent of the two-year-olds and eighty-one percent of the three-year-olds became pregnant. In other bison herds, higher rates have been observed. For example, up to eighty-seven percent conceived as two-year-olds in plains bison herds in Nebraska and South Dakota. The lower rates in Wood Buffalo National Park are probably related

to the effects of tuberculosis, and particularly (spontaneous abortion) brucellosis (Reynolds *et al.* 1982).

The maximum annual growth rate (twenty-seven percent) in the Mackenzie population during the mid-1970s is considered to be based on the maximum natality rates for mature cows with little or no mortality in any age class (Gates and Larter 1990). High natality (seventy – ninety-five percent) and low mortality (one – five percent) rates were assumed for the Chitek Lake model. The experience of the Mackenzie herd and observations of the Chitek Lake herd confirmed the validity of these assumptions for use in the model. Not all release projects have recorded such high growth rates. For example, the Nahanni-Liard herd experienced good calf production with poor calf survival rates (Wood Bison Recovery Team 1987).

Wild bison normally produce two calves every three years. One calf is usual, twins are rare (Reynolds *et al.* 1982). One set of twins was born on the Waterhen Wood Bison Ranch in April 1990. Twin calves have been reported twice for Elk Island National Park in a time period of twenty-one years (1966 to 1987) (Wood Bison Recovery Team 1987). For the model, twinning was not included. The general calving season for the Waterhen and Chitek Lake wood bison is from April to June. The gestation period for bison is usually nine to nine-and-a-half months (Reynolds *et al.* 1982). Male bison attain sexual maturity in advance of becoming part of the active breeding population. Only mature males tended cows in the bison herds in Wood Buffalo National Park (Meager 1973). Reported sex ratios (male:female) have been observed to vary fifty-one percent / forty-nine percent to fifty-four-and-a-half percent / forty-five-and-a-half percent in bison. A slight excess of males is common among mammals (Reynolds *et al.* 1982). For the model a sex ratio of fifty-one percent / forty-nine percent was applied.

Bison can live for up to forty years. In wild herds, bison with the age of fifteen are considered of having reached old age (Reynolds *et al.* 1982). For the purpose of the

model an age range of up to thirty years was applied. Within the time frame of the model - ten years - no animal was more than nineteen years of age. Therefore, no old age mortality factor was applied.

Observed natural mortality in free-roaming herds is low. These observations have been made with the Mackenzie Bison Sanctuary and the Yukon Nisling River herds. In the Mackenzie Bison Sanctuary, it took twenty-five years before wolf predation became a factor in the population dynamics. The high growth rate in the Mackenzie Wood Bison population occurred in the presence of a healthy wolf population. Wolf predation is nowhere a serious problem for release programs (Wood Bison Recovery Team 1987). There is no evidence of wolf predation in the Yukon Nisling River herd (Hoefs 1996). In the evolution of predator/prey systems, it is considered that regional wolf populations evolved in association with local prey species and predatory strategies are aimed at local ungulate species. Predation upon a newly introduced species takes time, especially when traditional prey species are abundant (Hoefs and Reynolds 1989). As of 1998, no wolf predation has been observed for the Chitek Lake Wood Bison Herd, and might not occur for many years. Therefore, a specific predation-related factor was not applied in the model. In the Wood Buffalo National Park herd, where wolf-related mortality is a factor, bison calves are the most vulnerable (Wood Bison Recovery Plan 1987).

High mortality rates can occur through misadventure or disease, as was experienced in the Mackenzie Bison Sanctuary. In late winter/spring 1998/89, 177 bison broke through the ice of a small lake and drowned. In 1993, 172 bison died from an anthrax⁶ outbreak. In Wood Bison National Park, periodic losses of large numbers of bison due to drowning have been recorded. Spring flooding in 1961 and 1974 caused the loss of several thousand bison. Such atypical circumstances can cause significant

⁶ It is an infectious disease that is almost always fatal in a very short time. The spores of the agent (*Bacillus anthracis*) can survive for years in the soil until suitable weather conditions favor an outbreak (Hoefs 1996).

mortality (Wood Bison Recovery Team 1987). Such high mortalities could threaten the survival of small herds. For this reason, the number of animals per release program in the Wood Bison Recovery Plan was increased to 400 or more, to secure geographically independent, free-roaming herds (Hoefs 1996). For the Chitek Lake wood bison population-projection model such disastrous events were not included. High mortality rates for the Chitek Lake herd would probably mean the end of this release program. In a study of survival chances of various ungulate species in western North American National Parks, it was concluded that larger populations persist, smaller ones decline and often disappear (Newmark 1986).

7.3.2 The Model

Models simulating a perception of reality are widely used to explain observations and suggest the processes which may have brought them about (Payne 1987). Models are also used for predictive purposes, based on past and present observations and assumptions. Assumptions generally follow the pattern that present trends will continue or similar observed situations will be repeated. The model attempts to embody the factors which determine future events. Obviously there is a high potential for error (Payne 1987). While recognizing the inherent limitations of models, the Chitek Lake Wood Bison Herd was correspondingly modeled in an attempt to extrapolate its growth potential.

In 1987, a theoretical prediction model for the potential growth of the captive wood bison herd at Skownan and a potential wild herd was established (Payne 1987). A modification of the 'General Ungulate Model, Version 3.0' (Johnson 1984) known as 'PolarPop' (Johnson and Knudsen 1985) was used to conduct the simulations. Although the model was originally designed for polar bears, it was found suited to the modeling of a wood bison population (Payne 1987). To determine biological productivity, data from

Elk Island National Park and the Mackenzie Bison Sanctuary were derived to run the model. Trial runs of the model revealed that reproductive rates and post-natal survivorship were high and that mortality in general was low. Otherwise, the population dynamics derived from observations could not be replicated in the model (Payne 1987). The same principle was applied to the modeling procedures presented in this dissertation.

The following assumptions were made, based on the literature review and observed numbers, for the Chitek Lake Wood Bison model:

1. 70% of all two-year-old cows produced one calf annually;
95% of all three-year-old cows produced one calf annually up to 11 years of age;
90% was applied for 12 to 14-year old cows;
85% for 15 to 17-year-old cows; and
80% for 18 to 19-year-old cows.
2. Twinning did not occur.
3. All calves born survived the first year.
4. The sex ratio of calves was 51:49 (male:female).
5. No specific wolf predation mortality was applied.

The following scenarios were modeled:

- a) under ideal conditions;
- b) with a 1% 'black-box'⁷ mortality;
with a 3% black-box mortality; and
with a 5% black-box mortality;
- c) hunting: 5% bulls-only with a 3% black box-mortality for the entire population;
15% bulls-only with a 3% black box-mortality for the entire population.

⁷ It includes deaths from all causes.

In the model, hunting commenced in the year 2000, when the population reached about 100 animals. Figure two illustrates the basic concepts of the Chitek Lake Wood Bison model.

These assumptions do not represent true numbers. However, the combination of these assumptions allowed a relatively close replication of the observed Chitek Lake herd growth from 1991 to 1997. The high natality rate and low mortality rates for released wood bison are consistent with the observations in other released wood bison populations such as the Mackenzie herd, Elk Island herd and the Nisling wood bison herd (Larter *et al.* 1993; Hoefs 1996) and with the predictions made by Payne (1987).

Chitek Lake Wood Bison Model

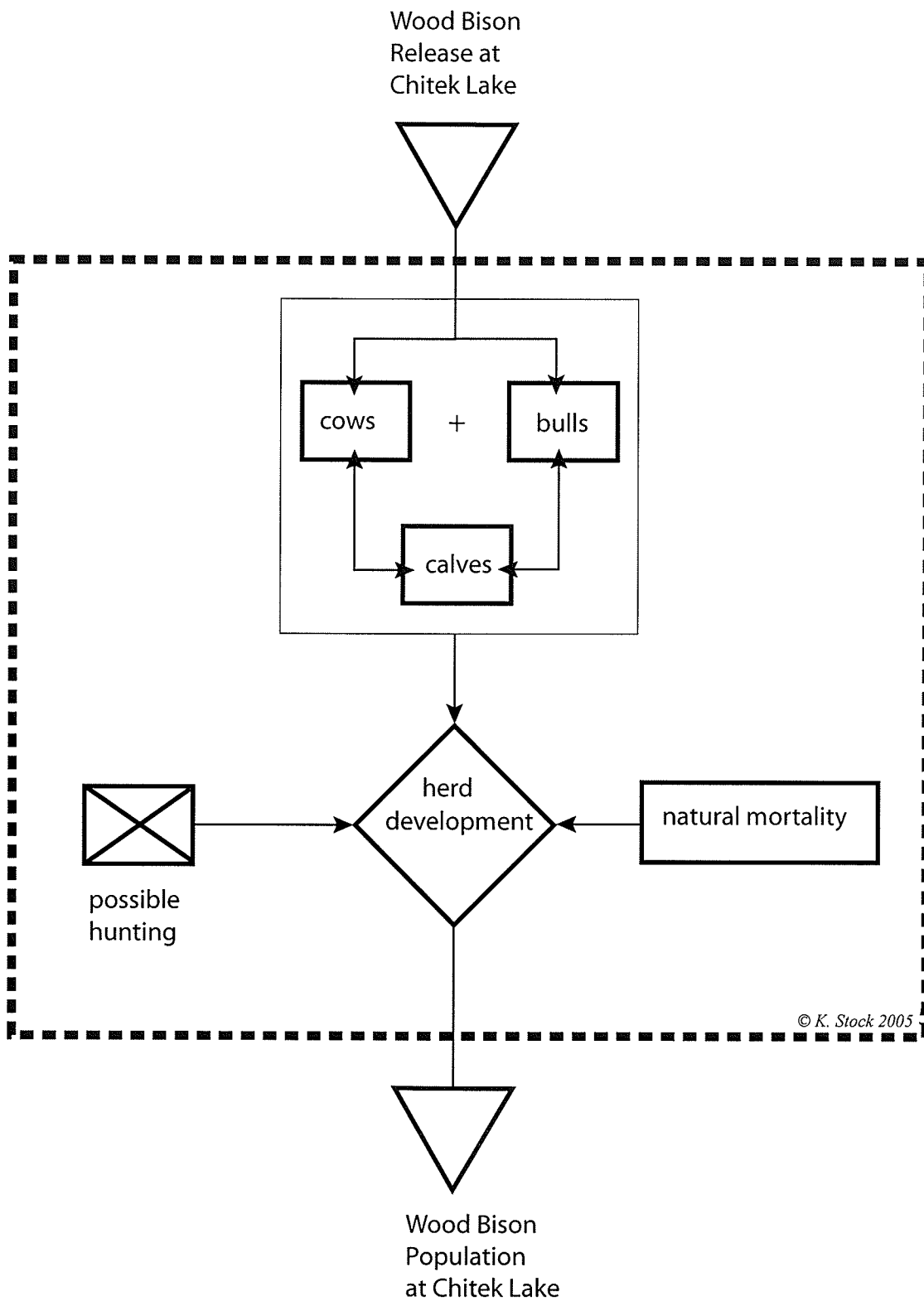


Figure 7: Diagram of the Chitek Lake Wood Bison Model

7.3.3 The Initial Population

The input for the modeled population consisted of the releases in 1991 and 1996. In 1991, a total of twelve wood bison, six cows and six bulls and, in 1996, nine additional animals (seven cows and two bulls) were released. Table four illustrates the breakdown of the population by year, sex and age. With the birth of the first calves, the first assumptions were applied to the model. It was not possible to determine the sex of the calves. The observed calves were assumed to be fifty percent female and fifty percent male for the even numbers (e.g. two calves = one female and one male for the following year). The fifty-one : forty-nine ratio was applied for the year of 1994, when five calves were counted. For the model, there were assumed to be three males and two females. In 1996, the first mortality was reported. A single bull that wandered approximately fifty kilometer to the south was deliberately culled in a hay field on Salt Point (Figure ten). The literature reveals only mature bulls, with a minimum age of five years, in peripheral habitat (Gates and Later 1990). In 1996, there were no five-year-old bulls, therefore one six-year-old bull was taken out of his age class for the model (Table four). In 1997, two bulls were reported dead. One bull was considered to be three or four years old, the other to be younger. For the model, one two-year-old bull and one three-year-old bull were taken out (Table four).

Table five was derived from table four. It presents the subtotals of bulls, cows and calves as well as the total population for each year. The 1997 data were used as the input numbers for the model. Figure seven illustrates the herd growth form 1991 to 1997 in histogram form.

The population growth rate was calculated from 1992 onward, pursuant to the birth of the first two calves. The growth rates up to 1997 were calculated for each year. The growth rate peaked in 1993, at approximately forty-three percent, and was lowest in 1997, at around eighteen percent (Table six). The average growth rate for the years 1992 to 1997 was twenty-four-and-a-half percent (Figure eight). The growth rate is established

dividing the number of recruits (surviving newborns) by the number of animals in the rest of the population, i.e. twenty surviving newborns added to a population of 100 results in twenty percent growth rate. For the average growth, the growth rates per year were summed up and divided by the total number of years.

Table 4: Age-distribution of the free-ranging wild wood bison

	Age Class	1991 ⁸	1992	1993	1994	1995	1996 ⁹	1997
Males	1 year	3	0	<u>1</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>4</u>
	2 years	1	3	0	<u>1</u>	<u>3</u>	<u>3</u> + 2* = 5	3 - 1** = <u>2</u>
	3 years	2	1	3	0	<u>1</u>	<u>3</u>	5 - 1** = <u>4</u>
	4 years		2	1	3	0	<u>1</u>	<u>3</u>
	5 years			2	1	3	0	<u>1</u>
	6 years				2	1	3 - 1** = 2	0
	7 years					2	1	2
	8 years						2	1
	9 years							2
Subtotal		6	6	7	10	13	17	19
Females	1 year	2	0	<u>1</u>	<u>3</u>	<u>2</u>	<u>3</u>	<u>4</u>
	2 years	2	2	0	<u>1</u>	<u>3</u>	<u>2</u> + 7* = 9	<u>3</u>
	3 years	2	2	2	0	<u>1</u>	<u>3</u>	<u>9</u>
	4 years		2	2	2	0	<u>1</u>	<u>3</u>
	5 years			2	2	2	0	<u>1</u>
	6 years				2	2	2	0
	7 years					2	2	2
	8 years						2	2
	9 years							2
Subtotal		6	6	7	10	12	22	26
Calves	1-12 month	0	2	6	5	6	8	8
Totals		12	14	20	25	31	47	53

_ added calves from previous year, * second release, ** deaths

⁸ Year of initial release: 13 animals were released but one three-year old bull wandered back to the compound (not part of the model).

⁹ Year of second release.

Table 5: Population of the Chitek Lake Wood Bison Model

Year	Males	Females	Calves	Total
1991	6	6	0	12
1992	6	6	2	14
1993	7	7	6	20
1994	10	10	5	25
1995	13	12	6	31
1996	17*	22*	8*	47*
1997	19*	26*	8*	53*

* estimated

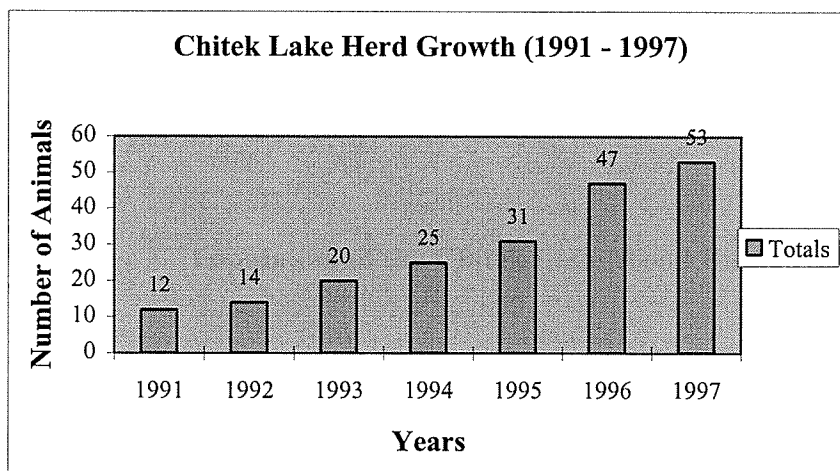
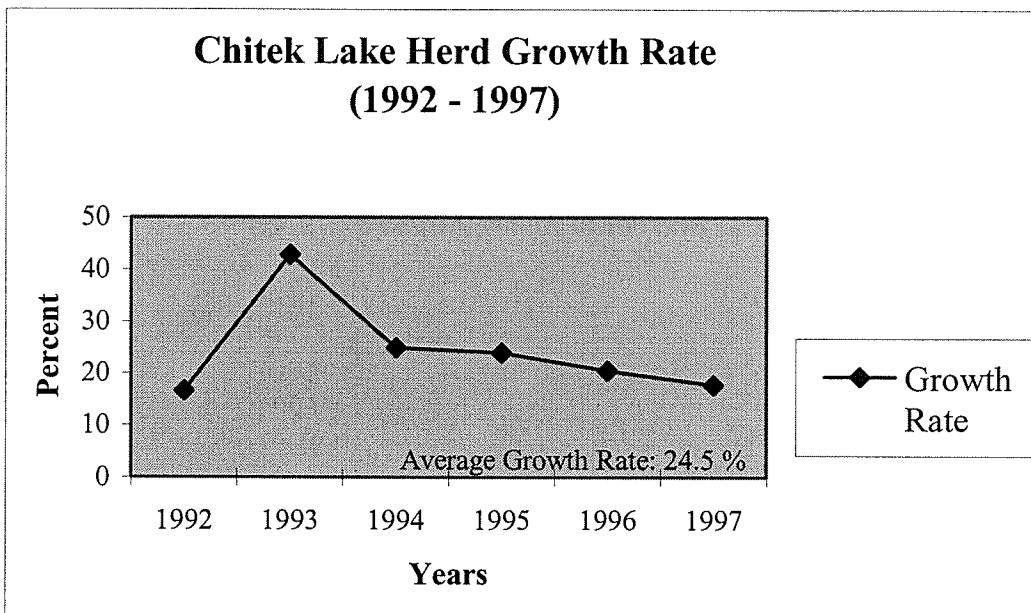
**Figure 8: Chitek Lake Wood Bison Herd Development (1991 - 1997)**

Table 6: Chitek Lake Herd Growth in Percent (1992 – 1997)

Year	Growth Rate in %
1992	16.66
1993	42.85
1994	25.00
1995	24.00
1996	20.51
1997	17.77

**Figure 9: Chitek Lake Herd Growth Rate (1992 – 1997)**

7.4 Results and Discussion

Tables seven to ten present the results of four scenarios (without mortality, and at rates of one, three, and five percent). The numbers are derived from the modeling program 'Analogy.' The highest possible number of animals (517) was reached with the scenario of no mortality and the lowest total (309), with five percent mortality. The male:female ratio came into balance in all scenarios, over ten years, with the applied fifty-one : forty-nine ratio. Tables seven through ten estimate population growth with no mortality and one percent, three percent and five percent mortality respectively. Table eleven presents the summery results of tables seven to ten. Figure nine illustrates the four scenarios in form of a graph. It is likely that the real growth rate will lie somewhere between the highest and lowest growth numbers.

Table 7: Projected Population Growth of the Chitek Lake Wood Bison Herd without Mortality

Year	Males	Females	Calves	Total
1997	19	26	8	53
1998	23	30	14	67
1999	30	37	17	84
2000	39	45	24	108
2001	52	57	28	137
2002	66	71	34	171
2003	84	88	42	214
2004	105	109	53	267
2005	132	135	66	333
2006	166	167	82	415
2007	208	208	101	517

Table 8: Projected Population Growth of the Chitek Lake Wood Bison Herd with 1% Mortality

Year	Males	Females	Calves	Total
1997	18	26	8	52
1998	22	30	14	66
1999	30	36	17	82
2000	38	44	24	105
2001	49	55	28	131
2002	63	68	34	163
2003	79	83	42	201
2004	98	101	53	249
2005	122	125	66	308
2006	152	153	82	379
2007	188	187	101	467

Table 9: Projected Population Growth of the Chitek Lake Wood Bison Herd with 3% Mortality

Year	Males	Females	Calves	Total
1997	18	26	8	52
1998	22	29	14	65
1999	28	35	16	79
2000	36	41	22	99
2001	46	51	24	121
2002	56	61	30	147
2003	70	73	35	178
2004	85	88	43	216
2005	104	106	51	261
2006	127	127	62	316
2007	153	153	75	381

Table 10: Population Growth of the Chitek Lake Wood Bison Herd with 5% Mortality

Year	Males	Females	Calves	Total
1997	18	26	8	52
1998	22	28	13	63
1999	27	33	16	76
2000	34	39	20	93
2001	42	47	22	111
2002	51	55	26	132
2003	61	65	31	157
2004	73	76	37	186
2005	88	90	43	221
2006	105	106	51	262
2007	124	124	61	309

Table 11: Summary of Totals (Table 7 to 10)

Year	No Mortality	1% Mortality	3% Mortality	5% Mortality
1997	53	52	52	52
1998	67	66	65	63
1999	84	82	79	76
2000	108	105	99	93
2001	137	131	121	111
2002	171	163	147	132
2003	214	201	178	157
2004	267	249	216	186
2005	333	308	261	221
2006	415	379	316	262
2007	517	467	381	309

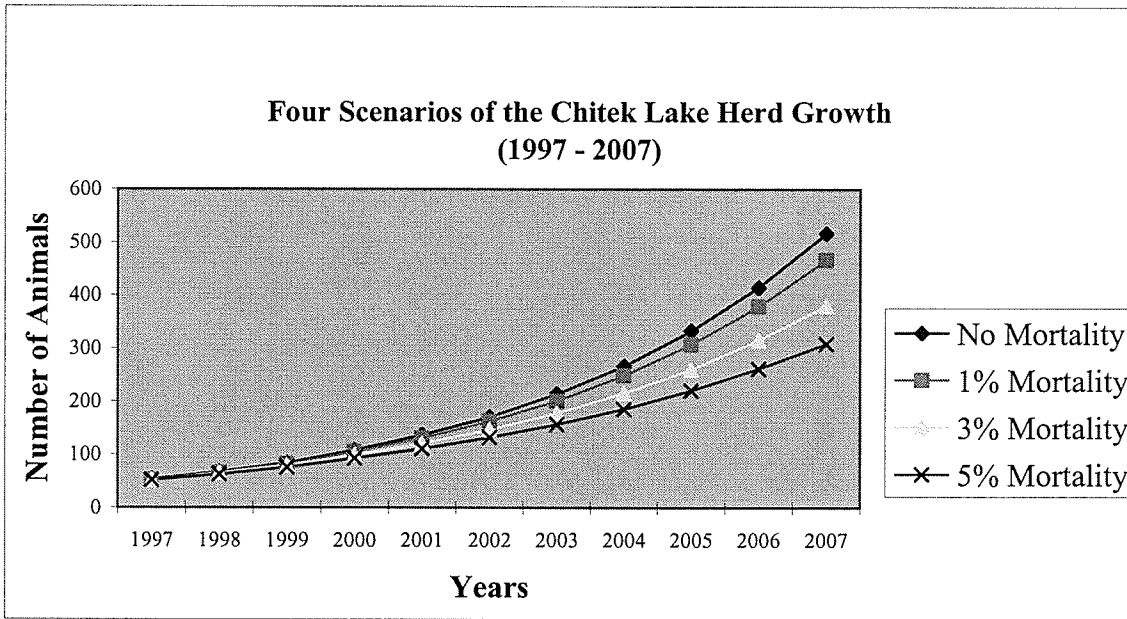


Figure 10: Four Projected Scenarios for Chitek Lake Herd Growth (1997 – 2007)

7.4.1 Discussion of Population Growth

The high average annual population growth rate of twenty-four-and-a-half percent, from 1992 through 1997, of the Chitek Lake Wood Bison Herd is consistent with recorded population growth rates in other release programs. The Mackenzie Bison Sanctuary wood bison herd exhibited a consistently high rate of growth (average twenty-one-and-a-half percent) for fourteen years after the release of eighteen bison in 1963. The rapid growth was attributed to good reproduction and high survival rates in all age classes, and to abundant habitat (Wood Bison Recovery Team 1987). The maximum growth rate for the Mackenzie population was twenty-seven percent in the mid-1970s (Gates and Larter 1990). The average rate of growth for the Elk Island herd was twenty-six percent from 1965 through 1983 (Wood Bison Recovery Team 1987). The Yukon herd growth rate was estimated at about fifteen to twenty percent (Yukon Government 1998). Such high rates were also reported for captive populations of bison (Gates and Larter 1990). Natural mortality rates have been low for the Chitek Lake Wood Bison Herd. Observed mortality rates amount to two percent for 1996 and 1997, and to 0.6 for 1991 through 1997.

Substantial fluctuations of large herbivores occur sporadically in well-established populations (Sinclair 1977; Houston 1982) and in populations recently introduced into previously occupied areas (Scheffer 1951; Klein 1968; Caughley 1979; Leader-Williams 1980, 1988; McCullough 1982). The underlying factor contributing to the initial eruptive growth phase is the large positive discrepancy between available forage and herbivore density (Riney 1964). There are four stages in an eruptive oscillation: an initial period of rapid growth until peak density is reached; a subsequent period of rapid decline; and in stage four, populations oscillate with an amplitude determined by a number of environmental factors (Caughly 1970; Gates and Larter 1990). The Chitek Lake herd has only been modeled for the initial stages, with fluctuations unpredictable at this time. The peak population will probably occur somewhere between 100 and 400 animals. The

introduction of controlled hunting would change the herd growth. Even with a carrying capacity study, inaccurate predictions are probable. For example, in 1987, a habitat evaluation program was conducted in the Mackenzie Bison Sanctuary to determine range composition and biomass of available forage. The results of the habitat research indicated that a population of 7100 wood bison could be supported in the Mackenzie Bison Sanctuary (Wood Bison Recovery Team 1987). To keep track of the population growth rate, the Chitek Lake Wood Bison Herd must be closely monitored. As additional information becomes available, it may be necessary to set new population parameters consistent with the carrying capacity of the range.

Dispersal, food availability, predation and disease are the main factors to be considered that impinge on density and growth of large herbivore populations. For the Mackenzie wood bison population, evidence was found of dependency upon range availability and predation as factors to limiting density and population growth respectively. Disease is deemed not to be a factor in the Mackenzie Bison Sanctuary (Gates and Larter 1990).

Forage quantity, quality, and availability affect productivity of herbivores in the longer term. The quality of forage in winter may be limiting to the Hay-Zama, Yukon, and Manitoba herds. Bison are tolerant of cold temperatures, but extended periods of deep snow can impede movement and cause foraging difficulties. Crusted snow restricts foraging success for both juveniles and adults (Wood Bison Recovery Team 1987). As of 2002, the Chitek Lake bison have coped adequately with winter conditions, especially during the harsh winter of 1996/97, with its deep snow conditions.

7.4.2 Range Expansion and Dispersal

Population estimates during the first five years after release are more reliable than those of later years (Hoefs 1996). Monitoring of a growing free-roaming wood bison herd expanding its range is a challenging task in forested environments. It is particularly difficult to keep track of small groups of bulls or single animals that are known to disperse farther than female groups (Hoefs 1996). For the Yukon herd it has been estimated that the probability of detecting female groups is ninety-seven percent, and of male groups, fifty-seven percent during aerial surveys (Hoefs 1996). An accurate animal count for the Chitek Lake herd became more difficult with the increasing population over the years.

Bison are herd animals, but group size varies. Generally, three types of groups can be observed: matriarchal groups (cows, calves, yearlings, and sometimes a few older bulls), bull groups (including solitary bulls), and breeding groups (a combination of the first two groups during the rut) (Reynolds *et al.* 1982). Matriarchal groups vary little in size for most of the year. During the rut different matriarchal groups and bulls join to form breeding groups. In Wood Buffalo National Park, the average matriarchal group ranges from eleven to twenty-nine individuals. Smaller subgroups may be observed within matriarchal and breeding groups. Older solitary bulls are common even during the rut (Reynolds *et al.* 1982).

Wood bison use a variety of habitats, exhibiting seasonal patterns. Wet meadows and mesic meadows are important winter and summer habitats. During winter, bison are found mainly in sedge-dominated wet meadows (Gates and Larter 1990). Range expansion of wood bison is directly related to the distribution of meadow habitats. Wood bison do not occupy areas in which such meadows are absent (Gates and Larter 1990).

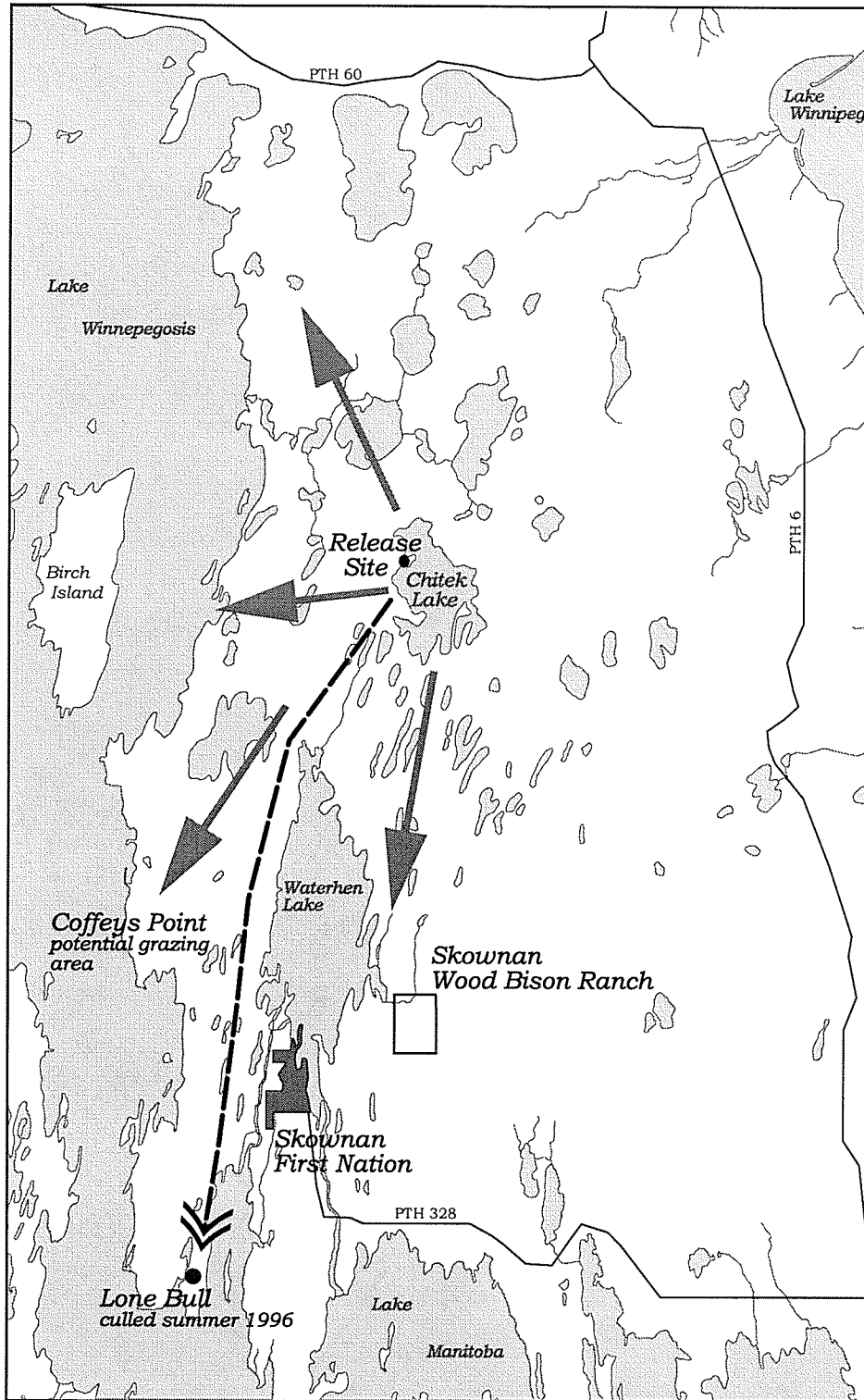
In the course of interviews with three knowledgeable local land-users, the existing range, and potential for range expansion (Figure ten), were recorded. Range expansion was predicted primarily to the west, northwest, and southwest, and to a lesser extent to

the southeast (Figure ten). These predictions were made based on observed Chitek Lake wood bison behavior and intimate knowledge of the area. These observations are consistent with the described habitat preference for wet meadows. The areas to the west, northwest, southwest and to a lesser extent to the southeast contain good meadow habitats. The areas to the east and north-east were classified as woodland caribou habitat with bog environments which are not likely to be steadily occupied by wood bison in the near future (Huhtala, 1998, *pers. com.*; Marion, 1998, *pers. com.*). Spring, summer and winter habitat around Chitek were recorded and mapped. This sensitive wildlife information is not displayed in this dissertation. It is too accurate and presents detailed local knowledge. It is interesting to note that wood bison travel back to the release site during all seasons. The reason for this may be related to the presence of two natural salt licks in the area.

Following the spring calving season which occurs between the middle of April and the middle of May, the bison move to the north shores of Chitek Lake to get away from biting insects (end of May / early June). When the bulldog (also called horse fly, *Tabanidae Diptera*) harassment is at its peak, bison swim to small islands in Chitek Lake to find relief. During this time, bison and elk (*Cervus elaphus manitobensis*) occupy the area adjacent to the north shore. Both species have been observed standing together on the shores and islands to get away from the insects (Huhtala 1998, *pers. com.*). When horse flies are present, bison spend less time grazing. In some cases, deaths of bison have been attributed to malnutrition and anemia caused by stress and blood loss associated with persistent horse fly attack (Morgan 1987).

In a study on wood bison habitat around and beyond Chitek Lake utilizing satellite imagery and the sampling of plants on selected sites, approximately 240,000 ha were identified as important bison range (Schindler, Saunders and Streiline 2004, p. 4). Out of this number, approximately 60,000 ha were identified as existing bison range, leaving approximately 180,000 ha of potential bison range (Schindler, Saunders and

Streiline 2004, p. 4). The area covered in the study extends from north of Lake Waterhen to highway number ten in the north, highway number six in the east and the shores of Lake Winnipegosis to the west. The scientific study using satellite imagery and plant sampling brings forth the same conclusion as the interviews with traditional land-users: the best habitat for potential wood bison range expansion lies to the north, west and south of Chitek Lake. Both findings provide a crucial example where traditional and scientific knowledge complement each other.



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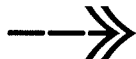
-  Predicted Herd Movements
-  Maximum Recorded Movement

Figure 11: Chitek Lake Wood Bison Herd - Potential Range

The eastern boundary of possible wood bison expansion lies in association with the significant change in the terrain from upland mixed forest to more organic complexes of bog (Schindler, Saunders and Streiline 2004). Areas of known use by wood bison in the Chitek Lake area are mostly comprised of aspen dominated mixed-wood and hardwoods. Wood bison also use mixed wood stands dominated by jack pine and black spruce but to a seemingly lesser degree (Schindler, Saunders and Streiline 2004). The same observations were made during the field season in 1998. In the study the following stand types were identified as high quality wood bison habitat in the larger Chitek Lake area: sedge meadows (winter), aspen uplands (summer) and aspen dominated mixed with conifer stands (summer) (Schindler, Saunders and Streiline 2004, p. 16). The report of the study includes several maps generated with satellite imagery and GIS work illustrating high quality wood bison habitat and potential range expansion (Schindler, Saunders and Streiline 2004).

7.4.3 Sport - and Subsistence - Hunting

In the Yukon, it was decided to start a restricted and well-regulated hunt limited to bulls at a rate of about two percent (~ five bulls) of an overall population of 250 animals in 1996. Numbers were adjusted in proportion to herd growth (Hoefs 1996). Based on experience gained in the management of the Mackenzie Bison Sanctuary herd, it was decided for the Yukon herd to start with five bulls in the first year, six in the second, seven in the third, eight in the fourth year and ten animals – either sex – in the fifth year (Hoefs 1996). This was revised to an initial harvest of two percent, limited to bulls only, in 1998 (Yukon Government 1998). Most of these hunts are related to animals that cause danger on the Alaska highway and damage in hayfields (Yukon Government 1998). The herd was estimated at 320 animals for the 1997 / 98 winter

season (Yukon Government 1998). In 1998 / 1999 the population reached 486, in 1999 / 2000 the target population of over 500 was reached with 530. For the 2000 / 2001 season, 517 animals were estimated. The estimate for 2001 / 2002 lies at 540. The first hunt took place in the 1999 / 2000 season at a five percent bulls-only rate. As of 2002, the hunting rate is set to five percent bulls-only (Jung, *pers. com.*, 2002).

Three types of hunters were identified: resident Yukon First Nation members, non-native Yukon residents, and non-resident hunters. Allocations of the proposed quotas are to be worked out through a political process. No numbers for allocations were suggested in the Yukon draft report (Hoefs 1996). In the Yukon, permission has been given to native people in certain areas to use their quota or part of their quota to accommodate non-resident hunters. Non-resident hunters are often interested only in the trophy head and occasionally in the hide. The meat as well as the guiding and outfitting income would thus be available to the First Nations' communities. The meat could also be distributed to charitable organizations. Depending on location, trophy quality, subspecies of bison, a bison hunt may be sold for between CN\$4,000 and CN\$6,000 (Hoefs 1996).

With a growing herd at Chitek Lake, similar hunting opportunities may become possible for First Nation, resident, and non-resident hunting. The following scenarios were modeled: a) five percent bulls-only in the event of a three percent black box (natural) mortality for the entire population (Table twelve, Figure twelve), and b) fifteen percent bulls-only in the event of a three percent black box mortality for the entire population (Table thirteen, Figure thirteen). The hunting factors were applied from 2000 to 2007. The rate of fifteen percent bulls (adults-only) (out of a total population of 100 animals, fifty-one males : forty-nine females) was chosen to simulate the Yukon model which started with six bulls in the first year of hunting, seven bulls in the second year and so on. The hunting prognosis assumes on-going high natality rates.

Table 12: Post-Hunt Population Estimates pursuant to 5% Bulls-only Hunting (starts in 2001) and a 3% Black Box Mortality for the Entire Population (numbers in brackets represent animals removed by hunting)

Year	Males	Females	Calves	3% Mortality	Total
1997	18	26	8	0	52
1998	22	29	13	1	64
1999	28	34	16	2	78
2000	36	41	22	1	99
2001	45 (2)	51	24	1	120
2002	49 (3)	61	30	4	140
2003	59 (3)	73	35	5	167
2004	70 (4)	88	43	6	201
2005	83 (5)	106	51	7	240
2006	99 (5)	127	62	9	288
2007	117 (7)	153	74	11	344

Table 13: Post-Hunt Population Estimates pursuant to 15% Bulls-only Hunting (starting in 2001) and a 3% Black Box Mortality for the Entire Population (numbers in brackets represent animals removed by hunting)

Year	Males	Females	Calves	3% Mortality	Total
1997	18	26	8	0	52
1998	22	29	13	1	64
1999	28	34	16	2	78
2000	36	41	22	1	99
2001	39 (6)	51	24	3	114
2002	42 (7)	61	30	4	133
2003	48 (7)	73	35	5	156
2004	54 (9)	88	43	5	185
2005	63 (10)	106	51	6	220
2006	74 (12)	127	62	7	263
2007	86 (15)	154	74	8	314

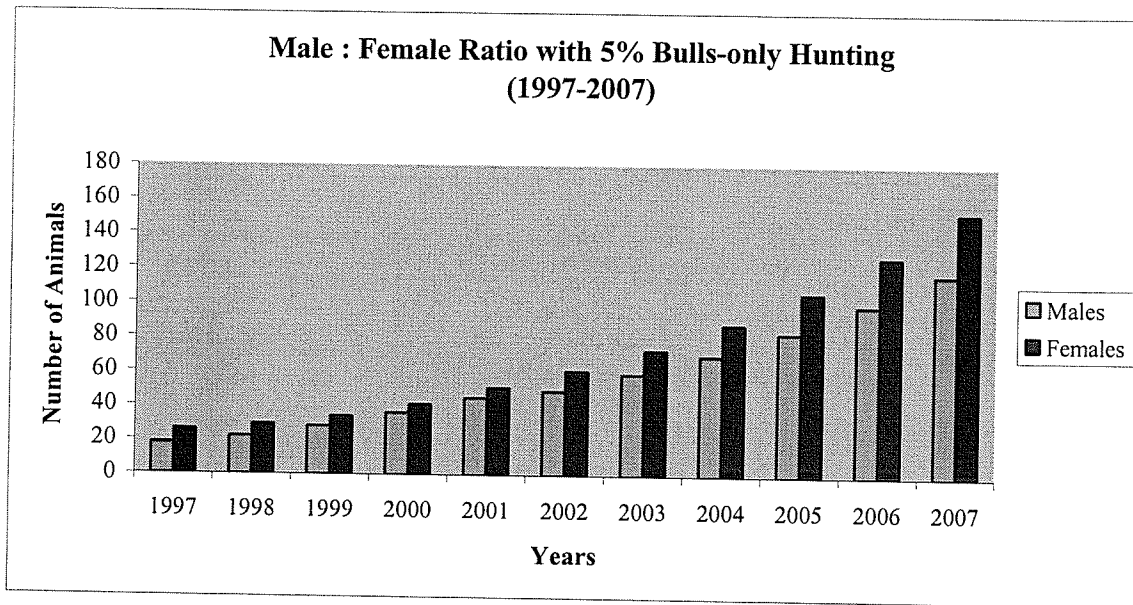


Figure 12: Extrapolation of Male : Female Ratio pursuant to 5% Bulls-only Hunting (starting 2001) (1997 – 2007)

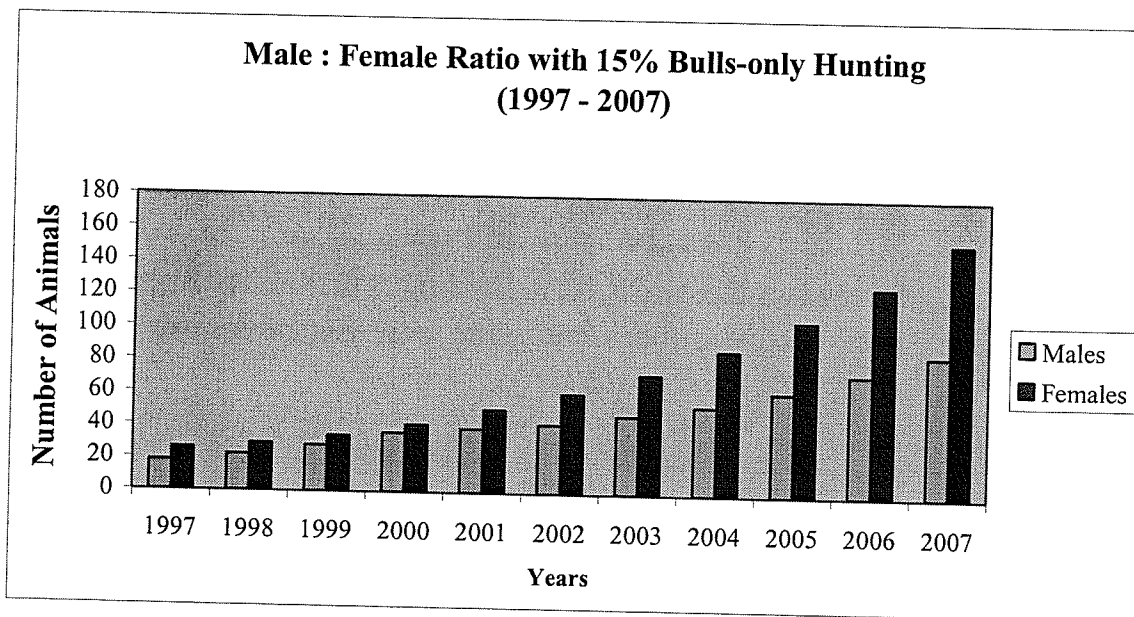


Figure 13: Extrapolation of Male : Female Ratio pursuant to 15% Bulls-only Hunting (starting 2001) (1997 – 2007)

7.4.4 Population Growth with Hunting

The numbers in both hunting scenarios indicate that the male population would experience a lower growth rate than the female population (in 2007: 117 males : 153 females in five percent bulls-only hunting scenario and eighty-six males to 154 females with fifteen percent bulls-only hunting scenario). The overall population growth would be reduced through hunting, and population numbers peaking between 238 and 314. These numbers may be desirable as a control to range expansion. Depending upon the level of precision (imposed or achieved), hunting may take animals that would otherwise likely succumb to another mortality factor (black box). The development of a wood bison management plan was initiated by Skownan First Nation and Manitoba Conservation, Wildlife Branch, to deal with hunting and range expansion issues. Due to political changes both in the provincial government and at the band level the management plan has been on hold since May 2000. Preliminary meetings were held during the summer of 2002 to re-initiate the planning process.

Initially, managed local hunts might commence with bison that are identified as 'problem' animals. Animals that interfere with the activities of people are considered to be 'problem' animals. These hunts should logically be conducted by the Skownan First Nation for local consumption. With increasing numbers of 'problem' animals, a special licensed hunt could be developed to accommodate some non-native resident hunting. At the outset, hunting rates should not exceed two to five percent. If bison numbers increase as projected up to 300, 400, and perhaps 500 animals over a ten-year period, higher hunting percentages could be introduced. The Chitek Lake herd dynamics should be closely monitored, and hunting rates adjusted accordingly. Quota allocations to resident and non-resident hunters could be made available through a drawing process (lottery). All non-native hunters should be required to employ outfitters and trained guides from

the Skownan First Nation. Most importantly, the area must be protected to forestall poaching. Access is the biggest perceived threat to the wood bison at Chitek Lake.

Winter would be the best hunting season, with frozen and snow-covered ground. It is also the time of year when trophies are in prime condition. Winter access into the area, with snow machines and sleighs to retrieve meat and trophies, is relatively easy. The cold temperatures keep the meat fresh during transportation back to the community. Depending on the location of the hunt and weather conditions, winter-season transportation time could take up to four hours. During the summer, meat spoils easily in warm temperatures. Long transportation distances at that season are not feasible, except by float-plane, which adds greatly to the expenses.

7.5 Discussion based on the Chitek Lake Model

The establishment of the Chitek Lake herd is already a qualified success, and is contributing to the Wood Bison Recovery Program. The herd is still in its initial period of rapid growth, with a twenty-four-and-a-half percent average population growth rate from 1992 through 1997. The scenarios for the population model were conducted with high natality and low mortality rates for a period of ten years, to simulate an initial period of rapid growth. Numbers in excess of 500 wood bison can be predicted, in the absence of disease- and predation-mortality. Applying mortality rates of one percent, three percent and five percent resulted in numbers of 467, 381, and 309 animals respectively, at the end of the first decade. By 2002, approximately 150 wood bison were estimated to inhabit the Chitek Lake area, despite the fact that survey counts revealed much lower numbers. Due to lack of habitat evaluation data, it was not possible to predict peak density, the anticipated subsequent period of initial stability or the period of expected decline. Close monitoring of the herd will be needed to evaluate changes in the population growth rate. The introduction of hunting would change the population growth rate and herd structure. Hunting rates would have to be adjusted proportionally to herd growth. A hunting program had not been established as of 2002. A completed wood bison management plan that addresses the issues of herd expansion and hunting is a pressing requirement.

Several interviews with local residents who possessed detailed knowledge of the region were successfully completed, to identify and map potential and existing wood bison range in the Chitek Lake area. The mapping process also revealed a lack of information as to rutting areas and animal movements to the west of Chitek Lake.

The Chitek Lake wood bison live in relatively small groups of up to 50 animals. This is also reported for the Nisling River wood bison herd in the Yukon. It is predicted that the Yukon herd will continue to be characterized by small dispersed matriarchal groups of 20 to 30 animals. Occasionally such groups may merge, on a short-term basis

(Hoefs 1996). The habitats in Manitoba and the Yukon, being relatively small, do not allow for congregations of hundreds of animals, as it is the case in the Mackenzie Bison Sanctuary or in Wood Buffalo National Park (Hoefs 1996). In the Yukon, the wood bison utilize an area two to three times as large as originally anticipated (Hoefs 1996) due to relatively small, dispersed meadow habitats. The Chitek Lake wood bison may also have to range over larger areas for the same reasons.

If agricultural development expands into more northerly areas, there will be a corresponding loss of wildlife habitat. Agricultural development represents a permanent loss of habitat for bison. Bison are not compatible with cultivated crops and pastures. The potential for conflict between free-roaming wood bison and agricultural interests cannot be dismissed (Wood Bison Recovery Team 1987), and has already been experienced with one bull from the Chitek Lake herd. Proposed logging in the Chitek Lake area has raised concerns with respect to potential problems with bison and roads as well as potential encroachment of agricultural development further north in logged areas, providing access to existing natural meadows that could be turned into wild hay meadows. With the establishment of a protected area at Chitek Lake no logging and road construction can take place on protected land. Land all around the protected area is open to future logging, road construction and agricultural developments. Bison have been observed on a regular basis outside the protected area, and with increasing herd size, a greater range expansion is to be anticipated. For all of these reasons, an inclusive management strategy for these areas is urgently required.

The introduction of wood bison to this part of Manitoba should be viewed as an alternative to conventional agriculture, offering economic, cultural, ecological, and aesthetic benefits proceeding from the introduction of a native species requiring little human intervention for its successful propagation. Hunting of wildlife for food is a traditional pursuit of native residents. Bison have not been available since well before

1900 (Wood Bison Recovery Team 1987). The Chitek Lake Wood Bison Herd could evolve into a unique hunting opportunity in Manitoba, and one of very few in the world.

7.5.1 Monitoring of the Chitek Lake Herd

As the herd increases, more detailed information will be required about range use patterns, forage plant selection, interaction with other wildlife, particularly moose and woodland caribou, and possible dispersal of bison to other areas, where their presence may be problematic. Key to adequate monitoring of population status and use of habitat is the maintenance of a minimum number of bison equipped with transmitters. The number of animals with transmitters has to be increased with population growth and as additional habitats are colonized (Hoefs 1996). More funding is needed to conduct survey flights and ground surveys, as well as to maintain and add radio collars.

Ideally, GPS collars should be used to obtain such data. The possibilities and advantages of GPS collars in forested environments were tested on moose (*Alces alces*) (Rempel *et al.* 1995; Rempel and Rodgers 1997). Despite higher start-up costs, GPS technology significantly reduces the cost in the long-term in comparison to conventional telemetry (Rodgers *et al.* 1997). In particular, the male component of the herd has to be monitored in detail with the introduction of hunting and the anticipated wandering of solitary bulls into southern hay fields.

7.5.2 Problem Animals

As explained before, animals that interfere with the activities of people are known as 'problem' animals. Bison that roam along roads and in areas where they are not wanted, have to be removed. A road problem with released bison occurred in the Yukon. In 1989, about a year and a half after the first release, some Nisling River wood bison

became a traffic hazard on the Alaska Highway. They had wandered about 130 km south of the release site. Initially, local residents welcomed the opportunity to view bison as a tourist attraction. However, a number of collisions with vehicles and damage to fences and stored hay led to a petition to remove the bison. The dark animals were difficult to detect at night when standing on the road. At least eight bison died in collisions and another five were considered 'problem wildlife' and were shot (Hoefs 1996). In the late winter of 1992/93, 36 bison were rounded up and transferred to an enclosure which in turn started a new captive breeding herd in cooperation with the Champagne/Aishihik First Nation (Hoefs 1996). Problem animals from the Chitek Lake Wood Bison Herd could be culled in the course of special-permit hunts, of necessity at all times of the year. Since they are likely to be large, mature 'exile' bulls, they could be the subject of short-notice permits for native subsistence hunts or outfitted, guided hunts by residents and non-residents as well.

As mentioned earlier, the Ettihun Lake release project in B.C. had to be canceled because bison became hazardous to truck-drivers on an existing all-weather road (Gates 1998, *pers. com.*). Another road problem exists in the Mackenzie Bison Sanctuary, where hundreds of bison use a paved all-weather road. They feed on the grasses in the ditches. Each year about a dozen wood bison are killed in vehicle collisions (Gates 1998, *pers. com.*).

An all-weather road, as was proposed by Tolko (formerly Repap) in the Chitek Lake area, would have created similar hazards. Truckers and/or industry would have likely demanded the removal of the bison. Even a winter road may be too problematic and may require a special dusk-to-dawn travel ban. Future logging roads around the protected area may create similar hazards and / or inconvenience. The development of roads would also provide easier access for poachers. The hayfields of Salt Point to the south present another area of conflict. All of these issues need to be addressed in the wood bison management plan.

7.5.3 Protection of the Chitek Lake Area and Legal Status of Wood Bison in Manitoba

Most of the wood bison release projects are located in areas where the land is protected in the form of national parks (Elk Island National Park, Wood Buffalo National Park), wildlife management areas or wildlife sanctuaries (Mackenzie Bison Sanctuary). The core of the Mackenzie Bison Sanctuary was declared a Wildlife Conservation Area in 1987. Part of the range of the Nahanni population lies within Nahanni National Park (Wood Bison Recovery Team 1987). The goal, with every release project, is to establish free-roaming wood bison herds in remote areas that are free of other land-use activities such as agriculture and large-scale forestry and mining activities. For example, for the Nisling River wood bison release in the Yukon, the area selected was relatively free of competing land-use interests such as forestry, agriculture, mining or First Nations' land selections (Hoefs 1996). As explained before, bison become problem animals wherever they interfere with other activities on the land, for example, on roads or in hay fields. The Chitek Lake area in Manitoba was chosen because of its remoteness and inaccessibility. No major resource development was anticipated at the inception of the Waterhen Wood Bison Project. The forestry, road development and protection strategy were explained earlier on in this dissertation and will not be repeated here.

The protected area will protect most of the range currently accessed by wood bison in the Chitek Lake area until at least 2004. In May 1999, Skownan First Nation began developing a five-year Wood Bison Management Plan in collaboration with the Manitoba government, Wildlife Branch. Due to political changes on the provincial and First Nation level, all negotiations regarding the Chitek Lake Wood Bison Herd have ceased. Both sides have stopped taking an active interest in the management challenges.

The wood bison is currently recognized by the 'Committee on the Status of Endangered Wildlife in Canada' (COSEWIC) as a 'threatened' species. The enclosure at

Waterhen was designated as a Wildlife Refuge under the Manitoba Wildlife Act. Hunting is prohibited in the enclosure (Wood Bison Recovery Team 1987). Following the 1991 release, the wood bison were defined as protected wildlife under the Manitoba Wildlife Act (Manitoba 1994b). As noted earlier, this designation protects wood bison from hunting but affords no other protection in terms of habitat and / or spatial requirements for wood bison.

The continued success of the Chitek Lake Wood Bison Herd is dependent on political decisions with regard to the requirement for landscape protection and active management strategies to ensure that problem-animal issues do not arise.

7.5.4 Wood Bison Viewing

The wood bison is the largest land mammal in North America. Compared with other big game species they are relatively tolerant of humans. They are an ideal species for wildlife viewing as a tourist attraction (Hoefs 1996). These large animals can be observed with relative ease from the air and ground. Assuming the establishment of the proposed Lowlands National Park, tourist numbers in the northern Interlake Region will inevitably increase. From the proposed Long Point park component – 20 km northeast of Chitek Lake – “side trips to view the wood bison herd at Chitek Lake” (Canada and Manitoba 1996b, p. 6) would be possible. Airplane or helicopter rides would be best when travel on the land is difficult due to high water levels and biting insects in late spring/early summer. During late summer and fall, guided all-terrain-vehicle (ATV) tours could be offered as the terrain becomes passable and insect populations diminish in late summer. In the winter, guided snowmobile and ‘bombardier’¹⁰ tours could offer excellent opportunities for bison viewing and photography, assuming that no large-scale

¹⁰ A ski-steered track-laying vehicle with an enclosed cabin. Bombardiers are commonly used in the winter fishery on Manitoba lakes. Different sizes are available to transport 6-or-more persons.

resource extraction developments to preclude such undertakings occur in the Chitek Lake area.

Wildlife viewing opportunity programs would have to be developed in cooperation with local communities, in particular with Skownan First Nation, as well as the Manitoba Wildlife Branch and the Regional Natural Resources Office in Gimli. Skownan First Nation should be accorded priority access rights to tourism development. Local knowledge and resident participation are critical to development consistent with the interests of the community and the public-at-large (Hoefs 1996).

7.5.5 Suggestions of Further Research in Regards to Chitek Lake Wood Bison

A management plan is urgently needed for the Chitek Lake Wood Bison Herd. Such a plan should be developed jointly by the Skownan First Nation, the Wildlife Branch and the Regional Office in Gimli (Manitoba Conservation) to closely monitor population growth and herd expansion as well as to develop a viewing and hunting program. Similarly, a management plan for the Chitek Lake Protected Area needs to be developed. Further studies should be initiated, to establish habitat parameters and to assess the potential impacts of a growing wood bison herd on other ecosystem components. The following are perceived as demanding urgent attention:

1. Detailed vegetation mapping and feeding observations;
2. Information on calving and rutting areas, to map these critical habitat components;
3. evaluation of biomass production, to calculate the carrying capacity for wood bison in the Chitek Lake area; and
4. an overall wildlife population study in the Chitek Lake area to gain further insight into moose, elk, woodland caribou and wood bison habitat requirements, and the interactions of these species.

The future of the Chitek Lake Wood Bison Herd and the Chitek Lake Protected Area are considered to be important components of future sustainable development

processes for Skownan First Nation and viable alternatives to large-scale forestry operations.

Chapter VIII

8.1 Introduction to Values, Visions, and Aboriginal Spirituality

Two projects in the participatory action research methodology (PAR) have helped Skownan First Nation to ascertain the community-held dreams, visions and values. The role of Aboriginal values and visions is requisite in natural resource development with Aboriginal communities in Canada. The crucial aspects of both projects are analyzed in order to better understand Skownan's position towards the large Chitek Lake Area. Both studies could be considered social impact assessments. More and more social impact assessments are needed for large-scale resource developments. In the United States, they are required under the US National Environmental Policy Act (Clay and Dolin 1997; Bradshaw *et al.* 2001). They also exist in Australia (Campbell 1989). No social impact studies were mandatory for the hearings on the Repap / Tolko proposals. The representatives of MKO and Skownan First Nation had asked for federal environmental hearings that would include social impact assessments in the terms of reference. However, the Province of Manitoba and Indian and Northern Affairs rejected these initiatives.

The following sections will focus on the aspects of both projects that are relevant for this study. The second part of this chapter deals with Aboriginal spiritual understanding of the land and how it applies to Chitek Lake.

8.2 The Values and Visions of Skownan First Nation for Chitek Lake through Appreciative Inquiry

An 'Appreciative Inquiry Project' (1999 to 2000) facilitated by the 'International Institute for Sustainable Development' (IISD) took place from January 2000 to June 2001. A team of six people from Skownan First Nation conducted over 100 interviews to determine community values with respect to the surrounding forested landscape. The methodology was developed by Elliot (1999) and Cooperrider (1996) for the corporate business world. It was chosen on the assumption that this approach would lead to a more effective partnership between Skownan First Nation and the decision-makers in the forestry sector of the provincial government. The idea was to develop more effective ways of dealing with Aboriginal issues on forested lands. In Manitoba most of the traditional land-use territories of Native communities are allocated as 'Forest Management Areas' to pulp and paper companies. Initially, this project was intended to help to define integrated forest management strategies and to develop more sustainable forestry practices on the east side of Lake Winnipeg in the 'Pine Falls'¹ Forest Management Area.' However, the province was not able to establish a partnership with any of the reserve communities in the area. Based on the experience with Skownan First Nation, this community was chosen. As previously mentioned, Skownan First Nation, together with the Pine Creek First Nation, approached the Department of Natural Resources with a proposal to develop a co-management solution in recognition of their existing land-use systems. Now the Province was anxious to learn the reasons for the strong resistance to the logging and road development plans. The project was to reveal understanding based on Skownan's viewpoint and experience.

The idea of an 'Appreciative Inquiry Project' is to envision possibilities for the future that will manifest the values and dreams of a group of people. In his article, Barrett (1995) explains that "appreciation is the ability to see beyond obstacles, problems,

¹ It is operated by Tembec Paper Group, formerly Abitibi Price (Tappi 2004).

and limitations, and to generate hope in the human capacity to achieve potential” (p. 37). An ‘Appreciative Inquiry Project’ generates visions that will energize action in order to create learning environments for continuous improvements of a group of people (Baret 1995, p. 39; Cooperrider 1996, p. 8-9). It is interesting to note that the vision and action to create a lasting learning environment for Skownan First Nation evolved towards the end of the ‘Appreciative Inquiry Project’ and with the beginning of the ‘Vision Seekers Process’ in April 2004.

Appreciative inquiry projects have been successfully applied in numerous city revival projects. The important part of appreciative inquiry projects is that they involve all generations of people from the children through middle-aged adults to the elderly generation (Cooperrider 1996, p. 7-8). This was an appealing concept to Skownan First Nation (IISD n.d., 2000a,b,c d and 2001a,b,c) and Sachs Harbour – an Inuit community in the high arctic (IISD 2001d). Working with all generations in order to generate a vision for the future is a culturally appropriate methodology for Aboriginal communities.

Story telling is highly valued by Aboriginal peoples (Cruikshank 1999; Kulchyski *et al.* 1999). Significant teachings are passed on from elders to younger generations. The elders of Skownan First Nation felt validated. They were given an opportunity to share their stories from the past and to express their dreams, visions and fears. People commented that the extent and amount of such quality time spent together was an incredible encounter. The story telling time was one of the major achievements of the ‘Appreciate Inquiry Project’ for Skownan. The team members and interviewees felt that they were contributing toward a desired community goal. It generated a sense of hope and empowerment. The same experiences were reported from the appreciative inquiry projects in Chicago and Dallas:

Where appreciation is alive and generations are re-connected through inquiry, hope grows and community expands (Ludema 1996, in Cooperrider 1996, p. 9).

The events and experiences of the elders in the Skownan Resource Area came alive and formed a deepened image in the minds of all participants. People discovered how much tradition actually continues to be present in the community. One can only anticipate the importance of this part of the project to Skownan, since none of the outside researchers were present at the interviews. According to Cruikshank (1999) “a single story can ‘do’ several different things” (p. 107). It contains different layers of teachings. Every time the story is listened to another teaching can be learned. Native stories are dynamic and complex. They tell personal accounts, critical events, have meaning to the family, the larger community and take on different meanings across time (Cruikshank 1999; Kulchyski *et al.* 1999).

The community secured an inventory of the values and views of a large section of the population in regard to Chitek Lake. All original data stayed in the community. Values are an important component of the cultures of Aboriginal peoples. The full inventory of values can be viewed in the IISD reports (2000a,b,c,d and 2001a,b). Only the most important values in regards to Chitek Lake are summarized here:

The forest gives protection and comfort to the people.

It is a magical and mystical place, connecting Ojibwa people.

The forest provides food, shelter and medicines.

The land and the forest have human properties. People see the trees as their brothers and sisters.

Going onto the land provides peace and healing. People feel good about themselves. They develop a spiritual and loving relationship with the land.

Chitek Lake is the heart of the homeland of the people of the Skownan First Nation.

It is fun to spend time on the land; people are happy in the bush.

The land gives a feeling of togetherness to the people. People were much healthier and stronger when they lived off the land. People work together when they hunt, trap, fish and gather. Hunting, fishing, trapping and gathering continue to be important economic activities for many people in the community.

The Skownan Fur Block continues to provide many resources that are of high value in the Ojibwa culture.

Seneca root gathering continues to be an important cultural and economic activity.

Fishing at Chitek Lake, Inland Lake and Archie's Lake is profitable.

Hunting moose and deer brings happiness and pride to the hunter and feeds families. Wild meat tastes better and is healthier than store-bought meats.

The forest should be a natural place; tree plantations are not acceptable.

More trees should be on the reserve. People would like to plant trees around their houses (IISD 2001b, p. 8-9).

These values have profound meaning to the people of Skownan First Nation. They reflect the very core of the significance of Chitek Lake. No further explanation was given to the meaning 'a magical and mystical place.' 'Protection and comfort of the forest' was strongly emphasised. A direct link was made to the housing situation on reserve. People explained that too many houses were built in open areas instead of 'in the bush.' A group of houses located in an open meadow are the least popular and the most run down houses on reserve. People that are assigned to these houses try to move out as soon as possible. Houses built away from the road, hidden by the forest are the most valued homes. Some people also explained that they feel unprotected and 'naked' on their trips to Winnipeg with the lessening of the forested land and the increase in open fields. They indicated that they would feel lost on the open plains of North and South Dakota. The envisioning of large clear-cut areas in the large Chitek Lake area generates a lot of concern and fear among the people of Skownan First Nation. However, small-scale logging activities as conducted during the 1950s and 60s are acceptable. People of Skownan are of the view that the decision as to where and when to cut should be placed with the community. To summarize the most important aspects of the land in the words of the people:

The land has great importance to the people of Skownan. Individuals interviewed expressed their love for the outdoors, enjoyment of spending time in the bush, and the good feeling they have when out on the land. As well, they noted that having land skills makes people feel good about themselves and provides them with food that can be shared with others.

Community members often noted the importance of spending time together, particularly when out on the land. For instance, camping with children and having children hear the stories of their parent's and grandparents' lives were activities deeply valued by the community members interviewed.

Many of the stories told by participants reflected the importance they place upon mutual respect in sustaining a strong community (excerpts from IISD 2000c, p. 4-5).

A number of different categories were established for Skownan's visions. The headings include 'Respecting the Land,' 'Education,' 'Family,' 'Community/Recreation,' 'Chitek Lake,' 'Livelihood,' 'Health and Nutrition', and 'Spirituality' (IISD 2000a, p. 14; 2000c, p. 15 -16, p. 18-19). The collective community vision evolved with time and the building interview data:

- To develop caring, sharing and kindness;
- To develop respect for people and resources;
- To be a place of learning;
- To bring back some of the old ways, to teach children how to hunt and fish;
- To share the spirituality of Chitek Lake;
- To revive connections with elders;
- To plant gardens and trees;
- To teach traditional values and skills in school;
- To become healthier people and use traditional medicines;
- To start eco-tourism;
- To have more community celebrations and socializing on the land, and
- To start community-approved logging ventures (IISD 2000a, p. 9).

Most people envision very little in terms of landscape alterations. Leaving the land as is for wildlife and traditional activities is the main objective. Other visions for the future include: the construction of a sports arena, the establishment of an eco-tourism lodge at Chitek Lake, the marketing of Aboriginal products (IISD 2000c, p. 18-19; IISD 2001b, p. 21-28). The people of Skownan First Nation envision the Chitek Lake area as theirs to be used for traditional land-use activities and economic development in the future and do not consider businesses from communities further away as being active resource users of the area. The Skownan Resource Area is already shared with

commercial fishermen, trappers and traditional land-users from the neighbouring communities of Waterhen, Mallard and Rockridge. These communities have growing population numbers as well. However, through the process of the first 'Chitek Lake Park Reserve Public Consultation', some voices are requesting that all other communities that are bordering the area have to benefit from the establishment of a fully protected area (Manitoba Conservation 2004, p. 1). This will be a difficult situation for Skownan to deal with. The other communities did not invest in the fisheries and bison developments but want to have unrestricted access to possible economic benefits now. Except for Pine Creek First Nation, none of the other communities helped Skownan with the struggle to protect the Chitek Lake Area.

8.3 Presentation of and Reflections on the Appreciative Inquiry Project

The third component of the 'Appreciative Inquiry Project' was a focus-group meeting in Winnipeg to present the results of the project to decision-makers in the provincial government, forest industry and other groups interested in the Chitek Lake area. This two-day workshop took place on May 30th and 31st, 2001. The data and video were used to effectively express the community's values and visions. However, it was difficult to communicate the essence of the values and visions associated with a 'way of life' closely linked to the natural environment to people unfamiliar with Aboriginal spirituality and worldview. It was apparent during the two days that 'closing the gap' in understanding Aboriginal values and visions was not possible in such a short time frame.

Nevertheless, government officials agreed that the conservation and wildlife development projects with Skownan First Nation needed to continue in close co-operation with the government. It was emphasized that the establishment of a working group for the interim protected area was the next important step in the overall process.

It was suggested that the working group for the 'Chitek Lake Wood Bison

Management Plan' should resume its activity. People of Skownan First Nation were highly motivated based on the success of completing the 'Appreciative Inquiry Project.' The team members were anxious to move on to the next phase. However, neither working group has been realized and no partnerships have been formed since the completion of the IISD Project. At the Focus-Group meeting, it was also recommended that appreciative inquiry projects should be conducted in as many First Nation communities as possible in Manitoba. People from Skownan could be involved in the training aspect of the new projects (IISD 2001b). In an internal project evaluation undertaken by the team members, it was concluded that the appreciative inquiry methodology coupled with participatory video production was an effective tool for determining community values and visions (IISD 2001b, p. 32-38).

In June 2001, the Appreciative Inquiry Methodology project was completed (IISD 2001b). The 'Appreciative Inquiry Project' was the first PAR research project in Skownan. The project is highly valued by Skownan First Nation.

The biggest downside to the Skownan 'Appreciative Inquiry Project' is that it was conducted as a project and not as a process as originally designed by Barrett (1995). With the departure of the IISD staff, the community was left on its own, without any help to explore implementation of the recommendations that had emerged. Aboriginal communities have been flooded with well-intentioned projects designed to better understand Aboriginal communities with the view toward improvement of the local situation. The IISD project has left a lasting impression in the community. It raised the consciousness level of the natural resources issues for researchers, the participants as well as the community at large. Perhaps it has increased the awareness of Aboriginal issues on the land in government. However, it did not result in action to improve the community situation in relation to the Skownan Resource Area issues immediately.

Institutions, such as IISD, could play an important role in mediating between First Nations and government in addressing projects with good prospects of sustainability and

economic viability. Unfortunately, the IISD leadership made it clear at the beginning of the project that the institute would not continue its involvement with local communities. The IISD section 'Community Adaptation and Sustainable Livelihoods' was dissolved in 2001. IISD has transformed itself to a business-and-consulting-oriented institution. If institutions such as IISD refuse to involve themselves with sustainable development on a community level, then who will take sustainable development seriously?

Small marginalized Aboriginal communities like Skownan First Nation need help to successfully develop sustainable and economically viable resource-based enterprises. Bradshaw (2003) warns that problems associated with lack of human capacity can lead to failure of community-based resource developments (p. 148). The biggest shortcoming of Skownan First Nation is a lack of strong leadership since November 1999. Starting with the Skownan Fur Block, it was the leadership of Skownan First Nation taking the principal role in these wildlife and landscape conservation projects. The strong driving force from within the community has temporarily weakened. It is in a stage of transformation through education and community capacity building processes.

On the road of recovery to a healthy and economically viable community, the IISD project represented only one step in the process. Comparable projects and processes need to be ongoing, since issues related to the land and its resources themselves constitute a continuum. There is a good chance that the Skownan Resource Area will experience demands on its resources again.

8.4 The Values and Visions of the Skownan First Nation through the Vision Seekers Process

Through the 'Vision Seekers Process' (beginning in April 2000) an additional ninety-six interviews were carried out concerning the values and visions of the community. This process was developed in conjunction with West Region Child and

Family Services (Winnipeg Office) and Skownan First Nation. It is important to note that 'Vision Seekers' is a process and not a project. The idea for 'Vision Seekers' was to facilitate continuation after the initial starting phase of one year. The 'Vision Seekers Process' was developed from a basic understanding of Aboriginal worldview and the medicine wheel² (Loewen 2002, *pers. com.*).

At the beginning³ of the 'Vision Seekers Project' the facilitators asked participating community members to envision a dream for the community that would make a lasting contribution. All meetings took place in form of discussion circles and were called focus-group meetings. The circle was open to all community members. A set agenda was not given. After the meetings participants were asked to engage in discussion with family and other community members in order secure a larger view of the raised issues. Visioning and dreaming are important spiritual practices for Aboriginal peoples. They are appropriate methods for working with Aboriginal communities (Brody 1981; Bopp *et al.* 1984; Simpson 1999).

Throughout the process of fifteen focus-group meetings, it was decided by the community that higher levels of basic education were fundamentally needed in order for people to build more successful lives. People of Skownan clearly articulated that more education is required to deal with the pressing and imposing issues regarding the larger Chitek Lake Area in the long-term. It was decided that an 'Adult Education Program' on reserve was needed. The foundation for this decision was that it would be easier to successfully finish grade twelve at home and not having to travel or to move to Winnipegosis, Ste. Rose du Lac, Dauphin, Brandon or Winnipeg (Rungay 2000 and Stock 2001). Some students travel daily to Winnipegosis, Ste. Rose du Lac or Dauphin. Others move to either location and live with extended family members or in boarding

² Further information can be obtained in Bopp *et al.* (1984) and Kulchyski *et al.* (1999).

³ The researcher was part of all meetings at the beginning of the 'Vision Seekers Process' with Skownan First Nation and then worked with O-Chi-Chak-Ko-Sipi First Nation (fifty kilometres southeast of Skownan) on their 'Vision Seekers Process.'

arrangements. School attendance in Brandon and Winnipeg requires relocation for the school year. Completion rates for grade twelve at the public school for students from Skownan First Nation and O-Chi-Chak-Ko-Sipi First Nation are low. On average, one or two students graduate annually while in some years none receive grade twelve (Rungay 2000; Stock 2001).

The 'Adult Education Program' on reserve is in agreement with the philosophy of sustainable development. According to the Brundtland Report (1987) "human resource development demands knowledge and skills to help people improve their economic performance" (p. 111).

In February 2001, the program started with ten people and a ten-week life-skills course. On April 2, 2001, the academic school program (provincial standard) started with one schoolteacher and eight graduates from the life-skills program. In order for one teacher to handle different grade levels simultaneously the maximum number of students is fifteen (Loewen 2002, *pers. com.*). In February 2002, ten students were enrolled in the 'Adult Education Program' at Skownan. Two students graduated with grade twelve in June 2002. Twelve students started the program for their next grade level in September 2002 (Loewen 2002; Rungay 2002, both *pers. com.*). A 'Vision Seekers' classroom facility was built within the new health center on reserve. It was opened in September 2002. No further information on the program was provided to the researcher for the years 2003 and 2004.

The 'Adult Education Program' is connected to the community colleges in Dauphin and Brandon for distance-education courses. The 'Adult Education Program' also allows the incorporation of non-provincial school curriculum courses. For example, a bison management course was taught from February 2002 to June 2002. Several people from four reserves of the West Region Tribal Council with bison ranches participated. A bison management course for the training of several community members in preparation

for a wood bison board has been approved for the fall 2004. This course is offered to community members only.

As a result of the focus-group meetings and the interviews from April 2000 to April 2001, the following findings in regard to land and cultural values were revealed. The intimate relationship to the land and its sacred nature was stressed. The well being of the people in relationship to the well being of the land was emphasized as well as a strong determination to retain culture and language.

The Native North American concept that illness is connected to spirituality, supernatural powers and / or a violation of traditional rules and rites has been documented by Mail *et al.* (1989); Berkes (1999); Battiste and Youngblood (2000), and others. Several land-users and elders from Pine Creek, O-Chi-Chak-Ko-Sipi and Skownan First Nations have commented on this relationship.

In a 'Vision Seekers' community meeting the following order of importance was established based on the analysis of the interview material:

1. Spirituality;
2. Chitek Lake;
3. Recreation;
4. Education;
5. Community
6. Family
7. Respecting the land;
8. Livelihoods; and
9. Health and nutrition (Rungay 2000, p. 22).

Chitek Lake carries holistic symbolism for Skownan First Nation. It contains the notion of physical, emotional, mental and spiritual well being of the land with its lakes, and rivers, fauna and flora. It is a place of peace and freedom for the people, the Chitek Lake Wood Bison Herd and other animals. The people of Skownan see long-term opportunities for the larger Chitek Lake Area. In the vision of the people the land will provide a brighter future with economic activities based on traditional activities and wildlife conservation and enhancement programs. This view has been expressed for

many years by Skownan First Nation (Payne 1987; Nepinak and Payne 1988; Nepinak and Payne 1992; Nepinak, H. and K. Stock 1998; Stock 1996; and Nepinak, H. 1997; Catcheway, D 1998; Catcheway, E. 1998; Catcheway, M. 1998, all *pers. com.*) and was repeated in the 'Vision Seekers Process' (Rungay 2000). People of Skownan First Nation see their livelihoods and well being coming from the land, which is their spiritual homeland (Stock 1996 and Rungay 2000). The homeland concept has been widely observed in Canada through traditional land-use studies conducted with Aboriginal communities (Freeman 1976; Ash 1976; Armitage 1989; Hrenchuk 1991; Riewe 1992; Hill 1993; MKO 1993; Stock 1996; Peckett 1999 and others).

In the course of the interviews and the focus-group meetings, it became evident that many community members did not fully understand the meaning and implications of the interim protected area. People voiced concerns that their Treaty rights might be infringed upon once more especially in the longer timeframe. For the long-term vision of the larger Chitek Lake area, people expect the land to stay much the same and envision more youth to become active in traditional land-use activities. This development has started due to the successful fishing activities in recent years.

8.5 Comparison of the two PAR Projects

The 'Appreciative Inquiry Project' and the 'Vision Seekers Project' have demonstrated with almost 200 interviews and many community meetings how important the larger Chitek Lake area is for the spiritual, cultural, social, and economic future of the community.

In both projects all involved were surprised to find through the interviews and group discussions how many children, teenagers and young adults spoke or understood the Native language. Most adults and all elders speak the language. Some elders speak very little English. People of Skownan First Nation were pleased with this discovery.

They realized how much culture and tradition was present in the community through the knowledge of language. The researchers and project leaders also discovered that there are some young people who only speak Ojibwa. These are people that have grown up with grandparents, only briefly attended school and were taken on the land by their grandparents from childhood on. These young men are traditional land-users integrated in the socio-economic family hunting, fishing, trapping and gathering subsistence activities. Many other young adults told stories about their childhood when they were taken to the land by their grandparents. However, Skownan First Nation also has youth and young adults that do not speak the Native language. In most cases these are people that were not taken onto the land by grandparents.

Perhaps the most important outcome of both projects was that community members asserted to themselves how important the larger Chitek Lake Area was to them as individuals as well as to the collective identity of the community. The larger Chitek Lake area has a central place in the hearts and minds of the people of Skownan First Nation. Chitek Lake is in the centre of the spiritual core values and visions of Skownan First Nation. The results of the 'Appreciative Inquiry Project' are consistent with the findings of other research into the people / land relationships with Aboriginal communities in Canada (Abel and Friesen 1991; Lithman *et al.* 1992; Tester and Kulchyski 1994; Oakes and Riewe 1996; Nuttall 1998; Oakes *et al.* 1998; Wilson 2000; Scott 2001) and elsewhere in the world (Grim 2001). The land is not just an abstract geographical location; it is simultaneously physical, symbolic, spiritual and alive.

Based on the feedback and evaluation from community members about both projects, PAR is a culturally appropriate methodology to conduct research projects with Skownan First Nation. The process-based approach which allowed an action process after the research was completed was more successful than the project approach in Skownan. Based on this experience, it is concluded that research processes are better suited to Aboriginal communities.

Both methodologies can be easily applied in other Aboriginal as well as to non-Aboriginal communities. The outcome in terms of values, visions and projects can be expected to show variability and variety. However, the results of such studies with other Aboriginal communities that still have access to traditional land-use areas may show similar results.

8.6 Spiritual Connection to the Land

Aboriginal peoples have developed their own worldviews, mythology, creation stories, social orders, justice systems, their relationship to other people and on-going change in order “to make sense of their world” (Kulchyski *et al.* 1999, p. xi). Most of this is not well understood by western society. It presents a subject that researchers are only starting to explore from a perspective within the Aboriginal cultures (Bopp *et al.* 1984; Brown and Brightman 1990; Abel and Friesen 1991; Medicine Eagle 1991; Jett 1992; Ross 1992 and 1996; Berkes 1999; Kulchyski *et al.* 1999; Youngblood Henderson 1995; Battiste and Youngblood Henderson 2000; Whitley 2000; Wuttunee 2000). Aboriginal worldviews and knowledge are spiritually based and spiritually derived. Aboriginal people refer to this as ‘the way of life’ (Kulchyski *et al.* 1999, p. xv).

Spiritual connections to the land and animals are fundamental to Aboriginal culture (Brody 1981; Brown and Brightman 1988; Wenzel, 1991; Milne 1994; Berkes 1999; Battiste; Youngblood Henderson 2000). It is an intimate and personal inter-connectiveness between an Aboriginal person and the land (Moosetail, G. 1997, *pers. com.*). This knowledge and spiritual connection to the land is fundamental to the people of Skownan First Nation.

The most common underlying spiritual concept of Aboriginal cultures is the relationship with spirit helpers or guides. Each Aboriginal culture has its own metaphysical world order, creation story and symbolism. However, the basic principle of

connection and relationship to the other world and the concept of spirit helpers is the same (Battiste and Youngblood Henderson 2000, p. 44-45; Whitley 2000, p. 22-28). It is not the intention here to specifically describe Ojibwa Aboriginal spirituality. The foundation on which the spiritual relationship to the land is based is of importance here.

Spirit helpers can be spirit animals, late elders, personalities of myths (human and non-human beings) as well as natural phenomena like wind and thunderstorms. People can enter the supernatural world geographically through ceremony and / or travelling to specific places on the land. In Aboriginal worldview, the world consists of a three-dimensional sphere of the underworld (below), the physical world (the four directions) and the upper world (above) (Bopp *et al.* 1984; Whitley 2000, p. 24). These teachings are represented in the Medicine Wheel and as Kulchyski *et al.* (1999) explain:

The Medicine Wheel is a representation of traditional theology, philosophy, and psychology. For Aboriginal people it represents the teachings of the Creator about all aspects of life. ... The power of the world always works in circles. A circle is the symbol of completeness and perfection (p. xix).

Medicine wheels are three-dimensional spiritual teaching tools that are used by different Aboriginal groups who have their own versions and interpretations. Stone-built medicine wheels are widespread, dating back to early human times on the North American continent (Milne 1994). Today, the teachings of the Medicine Wheel are central in contemporary Native communities' working and healing efforts. On one level "the four directions represent the four aspects of self: physical, mental, emotional, and spiritual" (Kulchyski *et al.* 1999, p. xxi). Dysfunctions and diseases in Aboriginal society are seen as an imbalance of these four aspects with the disconnection from spirit seen as the dominant factor (Moosetail, G. 1997; Moosetail, B. 1999; Cielen, D. 2004, all *pers. com.*). With the loss of access to the land which results in the disconnection to 'a way of life' for many Aboriginal people much spirituality was lost throughout the centuries. Many times elders and other Aboriginal speakers at conferences, meetings,

environmental hearings and in personal conversations refer to this dilemma. In Aboriginal worldviews the geography of the physical and spiritual landscape is interwoven.

The seen and the unseen. The physical world is real. The spiritual world is real. These are two aspects of one reality. Yet, there are separate laws which govern each of them. Violation of spiritual laws can affect the physical world. Violation of the physical laws can affect the spiritual world. A balanced life is one that honors the laws of both of these dimensions of reality (in Bopp *et al.* 1984 p. 27).

Understanding the spiritual / physical relationship is part of understanding 'a way of life.' People of Skownan First Nation fear the loss of this in the event of the larger Chitek Lake area being fundamentally altered. In its present state, people have the opportunity to go back to the land to learn 'the way of life' when they feel drawn to do so (Nepinak 1997; Marion 1998, both *pers. com.*). There is a constant flow of people, predominantly men, travelling to Chitek Lake, especially during the winter months. Some people are regular land-users, whereas others travel on a seasonal base. For example, some are firefighters working during the spring / summer / fall fire season on different assignments. They are engaged as fishermen and trappers during the winter fishing and trapping seasons. Some people are occasional land-users in in-between job situations while others with regular jobs in the community travel to Chitek Lake on weekends and holidays. People speak about feeling 'good' and 'revitalized' from their visits to Chitek Lake.

Places on the landscape where the surface and the underworld or upperworld connect are sacred places. They have increased energetic vibration and / or magnetic anomalies (Petch a, b and personal observation). Such places are rock outcrops, caves, rock bridges, canyons, mountain peaks, water bodies such as lakes, springs and rivers and locations of old trees (Whitley 2000, p. 24, and personal observation).

There is a scale and order to the importance, strength, and power of these places: some are large features and important for several tribes such as the Black Hills of South Dakota (Lazarus 1991; Sundstrom 2004) or the petroforms⁴ of Whiteshell Provincial Park in Manitoba (Manitoba 1986; Manitoba and Roseau River 1990). Some features are significant to predominately one group of people like Chitek Lake to Skownan First Nation whereas others can be small and powerful for a ceremonial congregation or a special place for individual people. Many of these locations with their specific local geographic significance for Skownan First Nation are in existence in the larger Chitek Lake Area (Catcheway 1998; Marion 1998; both *pers. com.*). A number of them have been examined during the Chitek Lake archaeological survey (Petch 1998b). As Whitley (2000) explains sacred sites are “portals into the supernatural” (p. 25). Here spirit beings as well as shamans can enter each other’s realities (Whitley 2000, p. 25). Sacred sites are places where one can meet the spirit of the ancestors through ceremony.

The remnants of an ‘old’ ceremonial lodge were found during the archaeological survey. Dating was not possible since no organic material can to be found in ceremonial fire pits. The area is a grass-brush-opening within the forest. It was estimated that the site could be between fifty and 100 years old. It was a well-used area in the past. The well-grooved trails leading to the site and the openness are proof of that. One elder referred to this area as a place where the ‘old’ people gathered (Marion 1998, *pers. com.*). No further information was provided.

A granite outcrop rock in the Chitek Lake area is another important sacred site for Skownan First Nation. In a geological assessment of Chitek Lake, a strong magnetic feature was identified on the northwest corner of the lake. It is part of the greenstone belt. The magnetic readings showed unexplainable anomalies on the rock (Petch 1998a and b). The ‘power’ of the rock is known to the elders and some of the land-users of

4 Petroforms contain teachings of the clan system. It defines the roles and responsibilities for the Anishinabe (Manitoba and Roseau River 1990, p. iv).

Skownan First Nation (Nepinak, H. 1997; Catcheway, D. 1998; Marion 1998, all *pers. com.*).

Major land disturbances through industrial exploitation alter, disturb and often destroy the special land / underworld / upper world connection. The destruction of sacred sites is especially devastating for Aboriginal peoples. It is part of the loss of homeland and the loss of ancient spiritual connections through many generations, sometimes hundreds to thousands of years. Relocations are especially devastating to Aboriginal peoples (Tester and Kulchyski 1994; Bussidor 1997; Petch 1998; Scott 2001a) since they are removed from the ancient land / spirit connection.

Many Aboriginal people on reserves or in the cities who have little or no land connection would have to learn how to achieve these spiritual connections (Moosetail, G. 1997; Moosetail, B. 1999; Cielen, D. 2004, all *pers. com.*). A lot of Aboriginal people that have strongly adapted to the contemporary western world and / or Christianity have different views on these teachings. Some fully accept them with the incorporation of Christianity whereas others reject them (Kulchyski *et al.* 1999, p. xi).

There is a wide spectrum of involvement in Aboriginal spirituality: from beginners returning to their roots to advanced practitioners. However, a basic level of spiritual understanding seems to be present with reserve populations (personal observation). At the time of the fieldwork for this study, many elders were still alive in Skownan First Nation and Pine Creek First Nation. They were born on the land or in the small log houses on reserve. These elders had learned to live off the land. They were brought up in their Native language and in 'the way of life' (Abigosis, N, 1995; Contois, Z. 1995; Nepinak, H. 1997; Catcheway, D. 1998; Catcheway, E. 1998; Catcheway M. 1998; Nepinak, B. 1998; Marion R. 1998, all *pers. com.*). As of 2004, a few remaining elders from Skownan can tell the stories of living off the land. Kulchyski *et al.* (1999) explains that

Many of them [elders] were born 'in the bush' and, as their life histories attest, have seen a remarkable degree and pace of change. However, these individuals are not relics of some outdated way of life; they are contemporary people, struggling (like many of us) sometimes to resist, sometimes to ride the waves of change" (Kulchyski *et al.* 1999, p. xxi).

Despite all modernization, loss of language and cultural traits are often counteracted with strong revival movements of Aboriginal culture in reserve communities. Traditional teaching and 'a way of life' continue to be part of the reality of many Aboriginal communities. The people of Skownan First Nation are part of the ebb-and-flow between loss of traditions, language, culture and spiritualism and regaining some of this through school language programs, cultural groups and events as well as an increase of youth going onto the land with traditional land-users. Kulchyski *et al.* (1999) explains that there are many Aboriginal people "with bicultural identities" (p. xxiv). They are firmly grounded in Aboriginal spirituality and culture "while at the same time possessing the skills and knowledge required to succeed in the larger society" (Kulchyski *et al.* 1999, p. xxiv).

As long as the land, the animals, the plants and the sacred places are accessible the opportunity for Aboriginal spiritual learning is always there. This is an important issue for the people of Skownan First Nation (Nepinak, H. 1997; Catcheway, M. 1998; Catcheway, D., Marion 1998, all *pers. com.*).

For the land-use study (Stock 1996), people were not willing to reveal information on sacred sites and the spiritual connection to the land. The archaeological survey was only possible in conjunction with the community due to the pressured situation of loosing much of the homeland to logging and road development operations. Development sites for roads, fuel and trailer storage were planned near the 'power' rock. Some elders were not content with the idea of the archaeological survey. Not much information was given to the researchers for the preparation work. People wanted to see how good the 'white' researchers were and if they had the ability to connect to the land in a meaningful way in

order to find the sites. Many sites were found through tapping into the 'spirit connection with the land.' The elder who from time to time was present during the survey revealed other sites to the survey team.

Everything on the land has specific spirit connections. As Rubenstein (2003) explains in Aboriginal spiritualism "inanimate objects such as plants and stones, or such natural events as thunderstorms and earthquakes, are 'animated,' or have discrete spirits and conscious life" (p. 182). They can be perceived through the senses (Ross 1992, p. 82). People can acquire the skills to "feel (or taste or hear, etc.) the *properties* of things" (Ross 1992, p. 83). Some people are born with a heightened natural ability to sense these spiritual powers, others have to acquire them over a lifetime and some people will never be sensitive to them (Ross 1992, p. 83).

This sensitivity to nature is strongly prevailing in Aboriginal populations around the world.⁵ In the Aboriginal view, spirit helpers are co-creators of people's success and misfortunes in their lives. Traditional land-users receive assistance from spirit helpers and have experiences of the supernatural world while interacting with the physical landscape (Whitley 2000, p. 26; Moosetail, G. 1997, *per. com.*).

When the land-users leave the reserve communities to engage in hunting, fishing, gathering and all associated activities on the land, they leave the everyday stresses of life behind and enter the 'bush' in "altered states of consciousness" (Whitley 2000, p. 27; Moosetail, G. 1997, *per. com.*). Social interaction - forming special bonds and partnerships - and working well together are the main goals next to the subsistence and economic success of the fishermen of Skownan First Nation (Catcheway, D. 1998, *pers. com.*). The men feel satisfied and fulfilled on the land (Moosetail, G. 1997; Catcheway, D. 1989, both *pers. com.*). On March 3, 1989, after a long day of fishing and well into a profitable fishing season, the fishermen formed a large circle on the ice of Chitek Lake in

⁵ This is based on personal observation from interacting with different Native cultures.

celebration and gratefulness of their success and co-operation. The event was not planned; it transpired on its own. The circle was described as a very powerful experience for all involved. The news of the circle on the ice spread fast throughout the community with arrival of the fishermen back home. There was a sense of happiness and well-being throughout the community (Catcheway, D. 1989, *pers. com.*).

Few non-Aboriginal people can comprehend the Aboriginal spiritual relationship to the land and all things, the spirit helper concept and the level of significance of the social interactions that take place on the land (see also Wenzel 1991). It is difficult for western researchers to accept spiritually-based wisdom obtained through ceremonies, visions, dreaming and sensing as a valid and reliable form of knowledge (Wolfe *et al.* 1992; Deloria 1997). With time researchers working with Aboriginal communities obtain a general understanding of how important spirituality is to Native people without necessarily understanding it. The people of Skownan First Nation and many other Aboriginal peoples across North America have expressed the view that the spiritual values of the land cannot be measured on a monetary basis. The well-being of the land is directly connected to the well-being of the people. In this view, the loss of the larger Chitek Lake area as known to the people would predictably imply profound negative consequences for the people of the Skownan First Nation.

Canada's Aboriginal people view the land in a manner different from other Canadians. Generally speaking, non-Aboriginal Canadians find Aboriginal worldviews difficult to understand. Further information on North American Aboriginal spiritualism, spiritual connection to the land and teachings of the elders can be found in Bopp *et al.* (1984); Brown and Brightman (1990); Medicine Eagle (1991); Jett (1992); Ross (1992 and 1996); Youngblood Henderson 1995); Kawagley *et al.* (1998); Kulchyski *et al.* (1999); Battiste and Youngblood Henderson (2000); Whitley (2000) and others. Aboriginal worldview and philosophy have developed from the strong connection to the land that is both physical and spiritual. Unless these attributes are recognized in

development there will be little long-term success and sustainable development with Aboriginal communities, however well intentioned.

8.7 Summary of Chapter Eight

The 'Appreciative Inquiry Project' and 'Vision Seekers Process' were two important research projects for the Skownan First Nation. These studies re-affirmed the values and visions that the people had as a community for Chitek Lake. The people of Skownan First Nation were clear in their views that no large-scale developments should be undertaken in the larger Chitek Lake Area. The area must be left, as it is in order to continue with the wildlife and fisheries developments already established by the community. The largest development envisioned could be an eco-tourism lodge in conjunction with the wood bison herd sometime in the future. The research process 'Vision Seekers' allowed for the continuation of the dream. In this way it was more effective than the 'Appreciative Inquiry Project' that ended. Adult education on-reserve is seen as a significant component for the long-term development of the community's goals.

Aboriginal spirituality was explored in a fundamental fashion and related to the Skownan First Nation relationship with Chitek Lake. The spiritual connection to the land is fundamental to the people of the Skownan First Nation.

Chapter IX

9.1 Reflections on the Skownan Model

Aboriginal peoples worldwide are forced to function within the interests of a much larger non-Aboriginal society. They are consistently faced with those who have primary rights to resources, can invest in labour and capital. For Aboriginal peoples to claim ownership and territorial jurisdiction of land, they have to challenge “well-established opposing interests, major asymmetries of wealth and power, and lingering racism” (Scott 2001b, p. 11). The people of Skownan First Nation encounter these matters on a daily base. Many times people feel overwhelmed, frustrated, helpless and hopeless in their search for a better future in compliance with their cultural identity, spiritualism and worldview. Often community members express their dissatisfactions in meetings or personal communications. The application of a model as presented here can provide an avenue for community empowerment and alternative sustainable land and resource development. It is not suggested here that the application of the model will provide a fast solution to land and natural resource conflict situations. Instead it provides hope for Aboriginal communities to engage in a lengthy research process that may lead to alternative solutions. To engage in sustainable development in the capitalist driven economy is a challenging undertaking. It requires time, funding and co-operation between different parties and stakeholders and willingness by government to involve Aboriginal communities.

9.2 Further aspects of the Skownan Model

Skownan First Nation already had a long-term vision for the larger Chitek Lake area based on its own principles, worldview and stewardship: wildlife enhancement and conservation projects in order to produce sufficient meat for community consumption as

well as sustainable economic development. It is fundamentally important to Skownan to maintain access to the land in order to preserve its Aboriginal and treaty rights. At the same time the community's stewardship and spiritual connection to the traditional homeland can be up-held.

Aboriginal concepts and worldviews can be blended in with sustainable development in regards to land protection and wildlife conservation principles (Brundtland 1987, p. 114). However, the global economy is increasing the vulnerability of Aboriginal communities who are generally left out of the larger processes of contemporary economic development. Often they are subject to exploitation with the consequences of further marginalization, poverty and dysfunction (Brundtland 1987, p. 114). More and more Aboriginal communities around the world are looking for ways to counteract these developments with taking up the struggle to oppose the large-scale industrial developments. They are getting involved in education and research to empower themselves. Aboriginal communities are trying to implement their own economic development ideas. Access to a land base is fundamentally important.

Skownan First Nation saw the negative side effects of large-scale industrial developments on other Aboriginal communities and was highly concerned about its own socio-economic future. The community has struggled in an attempt to change the proposed large-scale industrial developments. For Skownan First Nation the effort of protecting the larger Chitek Lake Area is part of protecting cultural survival while at the same time offering landscape and species conservation.

In order to better understand Skownan's position and the challenges facing sustainable development efforts the following model of land representation has to be understood. According to Poirier (2001) "two representations of territory" (p. 98) can be found across Canada – that of the Aboriginal peoples and that of the non-Aboriginal people. The first representation derives from mythology, spirituality and Aboriginal worldviews, storytelling, the historical events since time of contact, as well as "the

customary ways of dividing, sharing, and transferring areas with which families have been entrusted” (Poirier 2001, p. 99). The second representation is founded in property rights of governments for economic development and administrative purposes. Both land systems are contrasting “cultural ontologies, knowledge systems, practices, and values (Poirier 2001, p. 99). Scott (2001b) describes the basic land model of the Canadian prairie provinces in the following way:

- (1) a southern industrial and agricultural region that is quite densely settled by immigrant majorities who have long since displaced Aboriginals from the vast majority of that land base and
- (2) a northern resource extractive hinterland supporting forestry, mineral and petroleum extraction, and hydroelectricity (p. 7).

Skownan First Nation is a Native community positioned on the border between the southern private holdings and the northern resource extractive Crown lands (figure 14). Moving further north from this ‘boundary’ area, extensive traditional land-use areas as well as allocation of extensive industrial developments are a reality. Generally, the industrial developments are regarded beneficial for the larger society (Scott 2001b, p. 7). Developments that involve Aboriginal communities are downplayed or considered as non-existent as it was the case with Skownan’s fishing, trapping, hunting, guiding industries as well as the potential for eco-tourism.

The reality of Skownan First Nation is sandwiched between these two legal land entities. At the time of the traditional land-use study (Stock 1996), a number of people were still exercising Aboriginal and Treaty hunting rights south of the community on leased community pastures between private holdings. Due to the constant harassment of the hunters by the non-native landowners resulting in charges and the seizure of hunting equipment, people of Skownan First Nation have largely given up hunting in these areas. This is considered a loss of traditional homeland and a loss of exercising Aboriginal and Treaty rights. Some of the Seneca root gathering activities continue in these areas. However, much of the former Seneca root gathering areas have been

converted into agricultural land for cattle ranching. The northern situation allows the continuation of Aboriginal and treaty rights (Stock 1996).

These 'sandwich situations' are difficult for Aboriginal communities. Poirier (2001) points out the Atikamekw-Montagnais (Quebec) had to learn to work with the "two systems of management and jurisdiction" (p. 103) in order to deal with contemporary resource issues on traditional homelands. She goes on to say that "they have also had to attempt to synthesize these two systems" (p. 103). All of Canada's Aboriginal communities are in this position and have to immerse themselves in the on-going learning processes that are challenging and sometimes problematic. Flexibility, rethinking, reinterpretation, and resistance are key elements in dealings of Aboriginal communities in relation to their territories (Poirier 2001, p. 103). People of Skownan First Nation face these challenges on a continual base.

The social order and cultural consciousness of Canadian Aboriginal peoples have evolved and changed over time with and through adaptation processes in relation to the cultural, social and economic value systems of non-Native populations. However, the fundamental spiritual connection and relationship to the land has endured and is respected with this work. Through sound academic research that leads to an increasing body of literature and inventories, disadvantaged Aboriginal communities can become powerful forces in resource management and alternative economic development based on sustainable principles and their own worldviews. The research and the researcher itself are important components of the Skownan model.

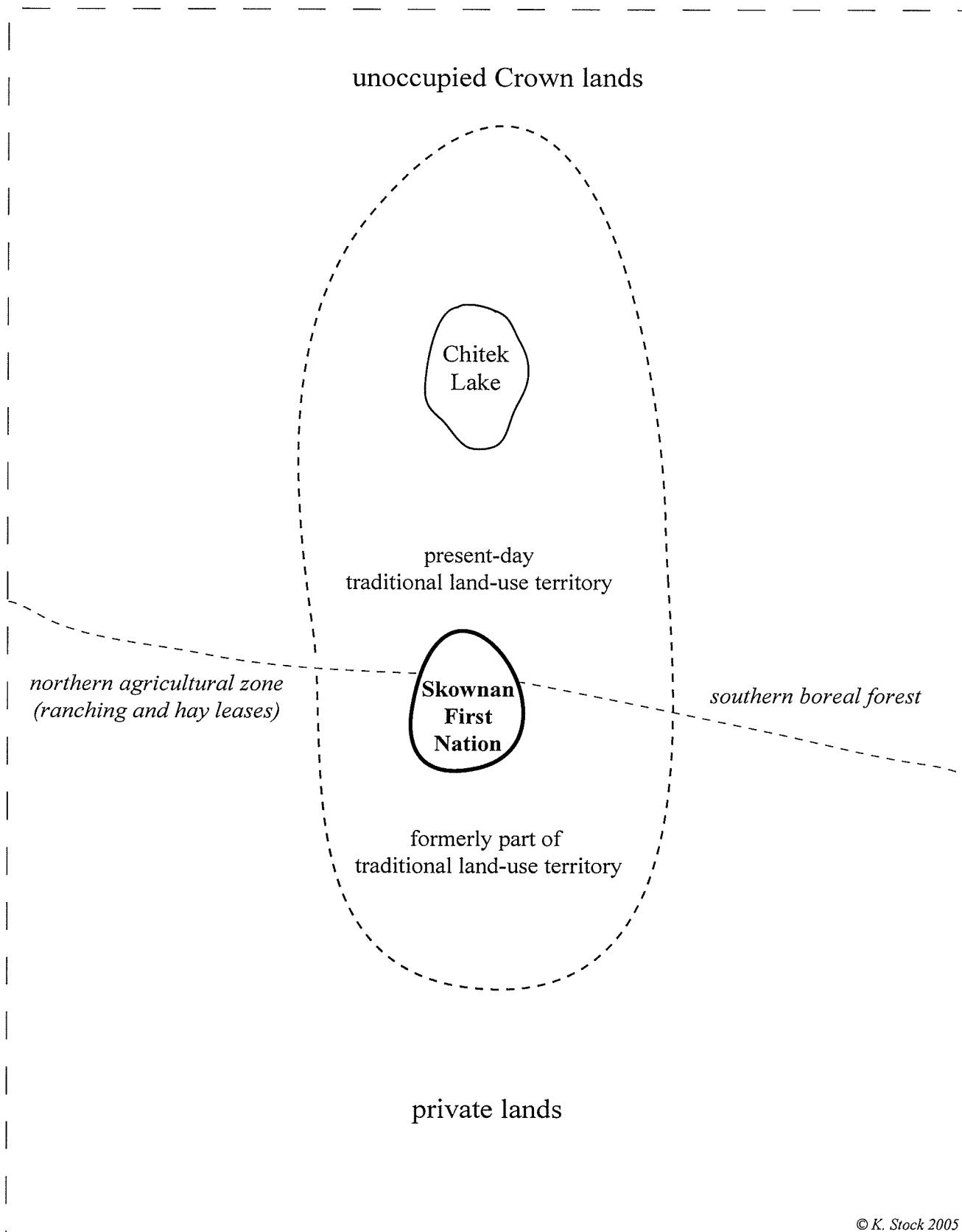


Figure 14: Basic Land Model - Applied to Skownan First Nation

9.3 The Struggle of Canada's Aboriginal Communities

The community felt violated to its spiritual core by the proposals that had been negotiated behind closed doors. Decisions were being made about the Chitek Lake Area without consultation with the traditional 'stewards' of this land. This was clearly a breach of Aboriginal and Treaty rights in the view of Skownan First Nation. Certainly, to paraphrase the Supreme Court of Canada, the honor of the Crown was not being upheld (see *R. v. Sparrow* 1990 in Kulchyski 1994, p. 230).

The community - especially under the leadership of former Chief Harvey Nepinak and the late Chief Moise Catcheway - embarked on a quest to find ways for wildlife development that would serve the community well. The narrow measures of contemporary mass market economies and political interests of contemporary industrial capitalism to extract the largest amount of natural resources for the least cost from a finite land area was not an acceptable development. This native community is part of a growing number of Aboriginal communities in Canada and other parts of the world to advance strategies for sustainable natural resources development that actively challenges contemporary industrial practices (Singh and Ham 1995; Barrow *et al.* 2000; Conway *et al.* 2000; Scott 2001a; Twyman C. 2000; Usher 2003). From an Aboriginal perspective, the history of northern development represents a progressive loss of spiritual, cultural and socio-economic values and economic activities for Aboriginal peoples (Reimer 1993; Hrenchuk 1991; Hill 1993; MKO 1993; Peckett 1999; Scott 2001a). Once the land has been damaged or destroyed, it has been stripped bare of spirit and mythology. The essence of Aboriginal reality and worldview is lost.

Against all odds, Skownan First Nation through the consistent efforts of a few dedicated community members, under the guidance of elders and with the help from academia was successful in advancing its own development ideas. These undertakings took a lot of hard work and persistency. Difficulties, hurdles, expectation, optimism, and delays characterized the process. Negotiations between Aboriginal communities and

federal and provincial government officials are known to be slow and often frustrating for both parties. Aboriginal peoples have to deal "... with all the obstacles, paradoxes, misunderstandings, and disillusionments that characterize this process" (Poirier 2001, p. 98). Support and opposition from other First Nations as well as set-backs to the process were experienced. In the beginning, a northern tribal organisation, in its effort to assist, attempted to take Skownan First Nation on a different path – a path that was more confrontational to government. Skownan choose to remain steadfast to its own beliefs. Fundamentally important to Skownan First Nation was that the resource development issues were resolved through negotiations – however challenging this process was.

Scott (2001b) tells us that "Aboriginal societies, whose marginalization can produce fierce oppositional cohesion, are often staging grounds for change according to alternative societal premises" (p. 4). Skownan First Nation was exactly in this position. The community confronted and re-negotiated its relationship with the state in a manner that resulted in a redefined territorial order that is culturally and socially more appropriate. Skownan First Nation maintained its myth and spirituality, its homeland and its access to wildlife and commercial food resources. As Scott (2001b) notes "in making space for themselves, they seek no less to transform all of 'us' " (p. 4).

Many examples can be found in the literature in relation to the effects of industrial developments on Aboriginal communities (Waldram 1988; Armitage 1989; Richardson 1989; Goddard 1991; Hrenchuk 1991; McCutcheon 1991; Wadden 1991; Ferreira 1992; Hill 1993; Gagné 1994; Henriksen 1994; Notzke 1994; Niezen 1998). Across Canada these industrial developments

"have caused substantial erosion of Aboriginal resource areas and interference with land-based subsistence and commercial activities, and bring inadequate alternative employment and entrepreneurial opportunities to local communities" (Scott 2001b, p. 5).

The traditional land base of Skownan First Nation is small in comparison to the large traditional land-use territories further north (Hill 1993; Hrenchuk 1991; MKO 1993;

Riewe 1992). It used to extend further to the south, however those lands have been in private ownership since the 1950s. The only industrial development that took place in the larger Chitek Lake Area so far is the hydro-electric transmission line that was built in the early 1970s. This development was conducted without the involvement of Skownan First Nation and no compensation has ever been paid. The biggest problem is that it has attracted moose sport hunters who obtain relatively easy access into good moose hunting territories by following the transmission line. This ingress caused a significant decline in the local moose population (Nepinak 1997, Catcheway 1998, both *pers. com.*). This resulted in the establishment of the Skownan Moose Management Agreement in 1985. Game Hunting Area 20 was closed to sport hunting licenses. However, local land-users continue to express their dissatisfaction with the appearance of sport hunters further north along the power line.

Many Aboriginal communities across Canada are dealing to a greater or lesser extent with northern resource exploitation issues and the associated problems of social stress and dysfunction that are a legacy of domination and dependency. Skownan First Nation is no exception to these phenomena. As Scott (2001) explains

“Aboriginal communities are forced to negotiate Aboriginal cultural and political landscapes in relation to Euro-Canadian concepts of property and jurisdiction” (p. 7).

The people of Skownan First Nation are restricted and impeded by this paradox - a complex situation for both community members and researchers – the most vital Aboriginal issues and arguments are excluded by the terms of reference imposed by government. Skownan First Nation was obliged to ‘learn the system.’ In the Clean Environment Hearings traditional use of lands to be logged were not included in the ‘scoping’ for the terms of reference at that time. Consequently the impact of the development had to be framed in terms of its impact on wildlife, *per se*, rather than on people, community, culture and spirit. Social impact assessments are needed for such

large-scale resource developments. However, the Province of Manitoba and Indian and Northern Affairs rejected the initiative of Skownan First Nation and Manitoba Keewatinowi Okimakanak (MKO) requesting social impact assessments.

The complexity of Aboriginal issues and knowledge is contained in the Aboriginal languages “with a depth of meaning that cannot be adequately expressed or fully translated into English” (Wuttunee 2004, p. 70). Therefore much wisdom and knowledge is lost in hearings and court settings where everything has to be presented in English - directly or through translation (Kulchyski 1994, p. 2).

9.4 Co-Management

The people of Skownan First Nation only decided on a provincial protected area as the better alternative solution to logging and road developments in defence of their home territory and their own wildlife development projects. The community would prefer to leave the land as it is, without additional prescribed provincial boundaries with uncertain jurisdictional rights and regulatory policies that might turn to their disadvantage in future times. It was either logging or protected area – proposed co-management solutions in order to deal with all natural resources issues based on an area management approach by Skownan First Nation were not considered as an alternative sustainable management regime by the Province of Manitoba and Repap, at the time. Skownan First Nation played an important leadership role in the initial development phase of co-management in Manitoba (Haugh 1994). The community was ahead of the times. Provincial authorities without full consideration, consultation or explanation dismissed the co-management initiative. Co-management has become a contemporary movement in political and environmental relations with Aboriginal peoples in Canada but also in other parts of the world (Berkes 1991; Gosse 1995; RCAP 1996; Roberts 1996; Jentoft 1998; Hannibal-Paci 2000; Scott 2001b; Kendrick 2003).

In order to move ahead with the wildlife development and landscape protection in the larger Chitek Lake Area a co-management relationship needs to be established between Skownan First Nation and Manitoba Conservation. The one-sided top-down approach as Skownan First Nation has experienced in the past with the proposed logging and road development plans must end. If the Province of Manitoba wishes to have a better relationship with its Aboriginal people, Manitoba Conservation has to become open to sustainable development initiatives with Aboriginal communities. Open dialogue is fundamentally important to such processes (figure sixteen). As Scott (2001b) explains

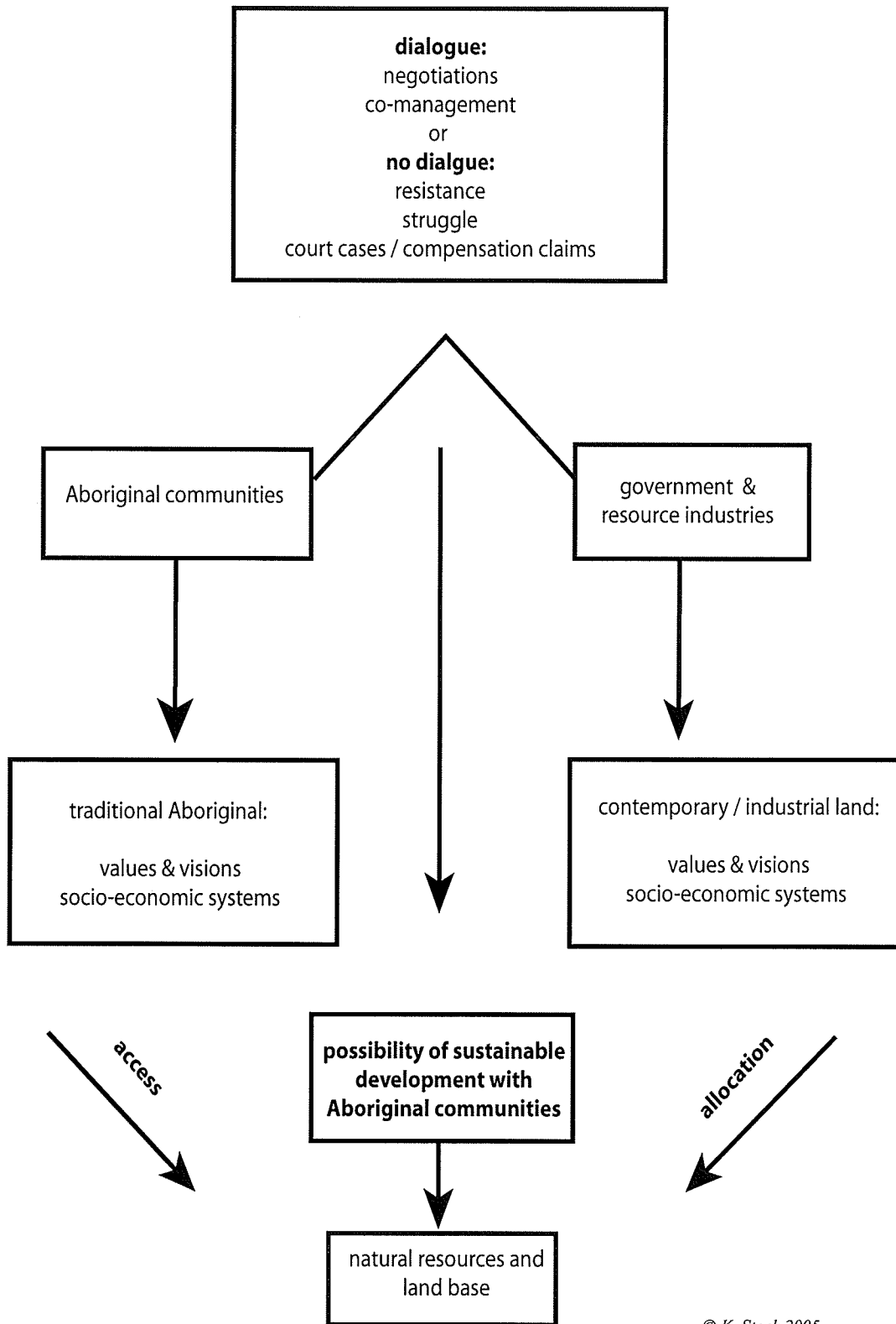
it is increasingly understood that the knowledge and participation of Aboriginal communities is fundamental to devising strategies for sustainable resource use and to coping with environmental changes that are both local and global (Scott 2001b, p. 12).

Through co-management everybody can win: wildlife and landscape conservation will be guaranteed, Aboriginal and Treaty rights will be up-held, and economic development will take place for the local Aboriginal people; and revenues will be generated for the larger economy. Wildlife enhancement and conservation development is the choice of Skownan First Nation, other Aboriginal communities have different visions for development and are engaged in logging. However, in Canada there is room to allow for alternative natural resources developments that involves wildlife and landscape conservation while enabling economic development at the same time. Co-management has become an important management strategy around the world in conjunction with Aboriginal peoples. In Canada, numerous wildlife management boards have been set-up that include Aboriginal people. They operate in a co-management approach: the Beverly-Kaminuriak Caribou Management Board; the Porcupine Caribou Management Board; the Nunavut Wildlife Management Board; the James Bay and Northern Québec Hunting-Fishing-Trapping Coordinating Committee [HFTCC]; the Inuvialuit Wildlife and Environmental Management Regime; the Yukon Fish and Wildlife Management Regime; and several others (RCAP 1996c; p. 735-771). These co-

management boards accommodate Aboriginal knowledge, allow for a sharing of power, and facilitate management decisions based on a deeper understanding with the addition of profound local knowledge (Scott 2001b, p. 12).

Skownan First Nation has made important contributions to the development of co-management since the 1950s with the establishment of the Skownan Fur Block with the Province of Manitoba, the Skownan Moose Management Agreement, the establishment of the Chitek Lake Wood Bison Herd, the co-management proposal for the entire Skownan Resource Area, and the establishment of the Chitek Lake Interim Protected Area. The First Nation has definitely challenged the central state system and was successful in changing capitalist resource extraction developments to wildlife and landscape conservation developments that are in accord with sustainable development and Aboriginal worldviews.

The new co-management initiatives will become important components of the Skownan Model. They will provide further research opportunities.



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Figure 15: Possibility of Co-Management of Natural Resources:
Aboriginal Communities / Government / Resource Industries

9.5 Stewardship of Ancestral Territory by Skownan First Nation

Through the centuries the people of the Skownan First Nation maintained traditional subsistence and economic activities based on hunting, fishing, trapping, and gathering within their territory. The commercial aspects have been significant based on trapping (fur trade), hunting (sale of game meat before 1930) as well as fishing, guiding and seneca root gathering (especially since the 1950s). Small-scale logging operations to support a local sawmill were also part of the economic activities of the Skownan people.

To the people of the Skownan First Nation, the land is the spiritual, cultural, social and economic homeland that needs to be maintained in its 'natural' way. As long as the land is there with its abundance of natural resources, it will provide for the Aboriginal way of life to a large degree in its spiritual and cultural meaning. The access to the land and availability of traditional resources and the exercising of Aboriginal and Treaty rights is a core value of Skownan First Nation. The next phase in economic development needs to be addressed: guiding for wood bison hunting, since the herd is fast growing. Split off groups and single bulls can migrate to the southern agricultural lands and cause problems there.

The elders and land-users of the Skownan First Nation are the 'guardians' and 'stewards' of the larger Chitek Lake Area. It is within this context that the political processes of the establishment of the Skownan Fur Block, the Moose Management Agreement, the establishment of the Chitek Lake Wood Bison Herd, the co-management proposal and the strong opposition to the proposed logging and road development are set.

Permission from the elders was given for the traditional land-use study, the archaeological survey and this research with the understanding that the work would enhance and strengthen the stewardship role of the community. None-the-less some elders were mistrusting and in opposition of these research projects in fear of the negative side effects with published information accessible to government officials and outsiders

that could have long-term negative effects on the land. A person from a neighbouring community inquired about obtaining a copy of the Skownan traditional land-use study for the family hunting and eco-tourism business. The idea was to use the existing maps for identification of hunting and guiding opportunities on the east side of Lake Winnipegosis. The researcher refused to hand out a copy for this purpose. The person indicated that he / she would get the study from the library and photocopy the maps the next time he / she was in Winnipeg. The University of Manitoba placed the study immediately under restrictive access. Researchers must provide a written request with outlining their research interest in the study. Photocopies of the maps are not allowed. Elders of Skownan First Nation have feared such use once traditional land-use information was published. Based on respect for these concerns, no further information on wildlife locations is revealed in this dissertation.

The development of the Skownan First Nation as a distinct political entity dates back to the establishment of the Waterhen Band Reserve in 1877. Skownan First Nation is a distinct social, cultural, and political entity with a band office, the Skownan Trappers and Fishermen Associations, the Skownan Community School as well as several cultural and sports organizations. Similar Aboriginal community developments have taken place across Canada (Poirier 2001, p. 101). Skownan First Nation reinforced its stewardship role of the larger Chitek Lake Area through its efforts to stop the externally imposed capitalist resource extractions in order to continue with its own wildlife resource development projects. Loss of homeland with its spiritual, cultural and socio-economic values was highly feared. Many times researchers have tried to calculate loss of territory mostly based on the quantitative measures of loss of game meat, loss of fish quotas and loss of furbearers (Usher 1976; Berger 1977; Berkes 1990; Berkes *et al.* 1992; Fast and Berkes 1994). However, Aboriginal peoples see the extent of these losses differently (Poirier 2001, p. 104-105). Loss of territory or loss of access to traditional activities on the land is a loss in terms of values, spirituality, meaning of life and the social

relationship with territory. In Canada, many Aboriginal communities are forced to deal with the socio-economic and cultural consequences after the loss of homeland due to major industrial developments and / or relocations of communities (Hrenchuk 1991; Hill 1993; Tester and Kulchyski 1994; Bussidor 1997; Petch 1998; Poirer 2001; Scott 2001a).

People of Skownan First Nation perceive the potential alteration and fragmentation of its traditional territory similar to the loss of territory experienced elsewhere in Canada. The leadership of Skownan First Nation was well aware of the negative consequences of large-scale natural resources developments and did not want to be placed in the same dilemmas ending up fighting for financial compensation in the Canadian court systems after the damage has occurred. Instead Skownan First Nation took a pro-active stand with sustainable wildlife development projects and co-management initiatives for the long-term benefit of its members and the environment. Despite the community's disadvantaged position with only one small political band government, limited infrastructure and funding, lack of technical and legal expertise, the elders and leadership used their capacity of solid resistance and sustained action calling on the help of sound academic research work. After ten years of negotiation efforts the First Nation was successful at preserving the larger Chitek Lake Area with an interim protected area in order to safeguard the core of its homeland. The traditional land use territory north of the community is still intact. However, new logging plans are proposed for an area directly adjacent to the north east of the Chitek Lake Interim Protected Area for the winter season 2005/06. The area to be logged encompassed important woodland caribou habitat and is part of the overall Skownan Resource Area. Again, the community was not informed and involved in these proposals by Tolko or the Province and has to deal with it again through opposition.

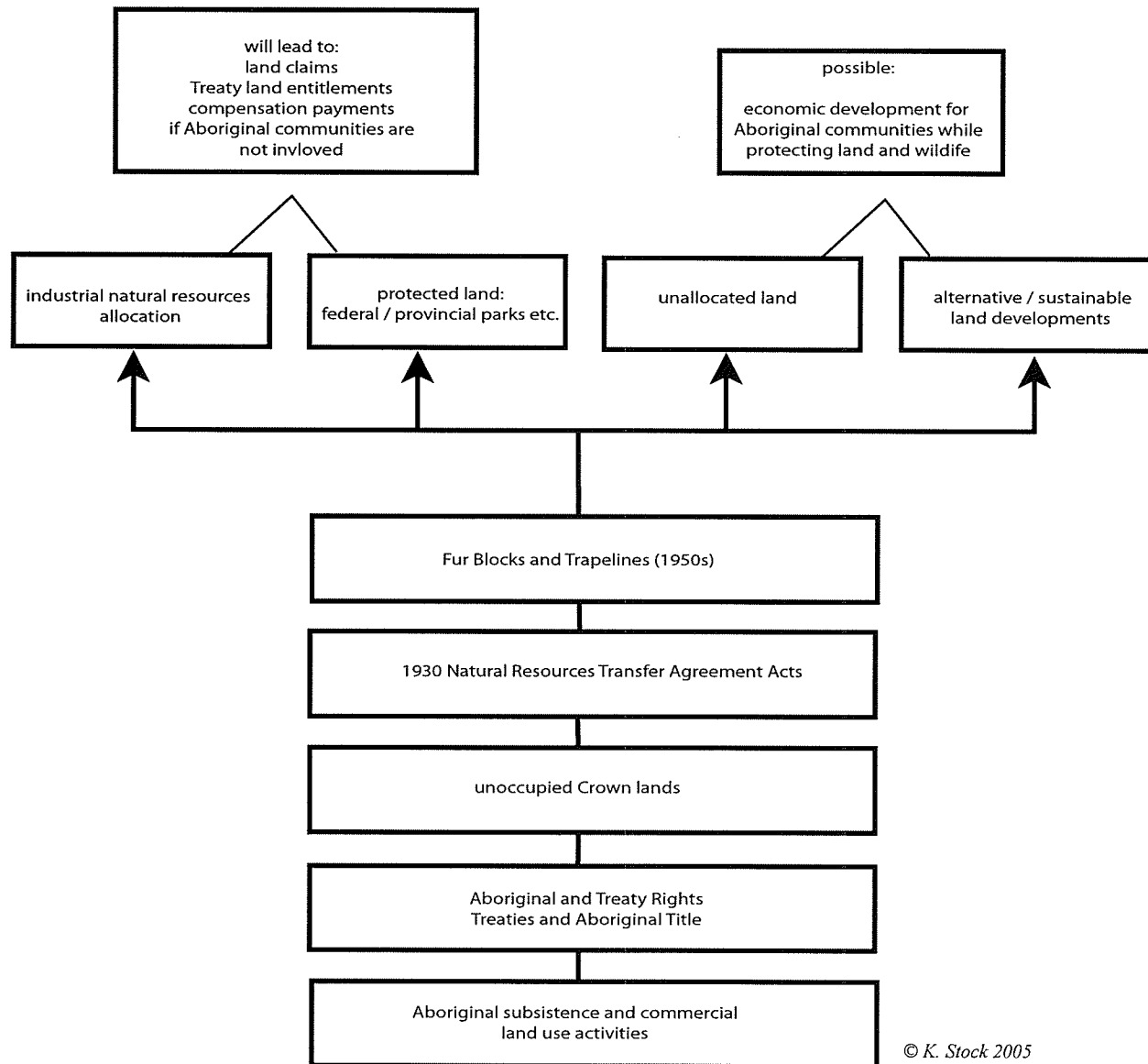
For the people of the Skownan First Nation the passing on of family traplines, fishing spots, hunting areas, camp sites from generation to generation has been on-going in the larger Chitek Lake area since the time before the treaties. Skownan First Nation is

a Native community where the people continue to maintain strong spiritual relationships with their ancestral territory due to continued activities on the land.

Despite all risks of not succeeding, Skownan First Nation worked its way through the challenges of opposing large-scale industrial development in order to maintain its stewardship role in the larger Chitek Lake area. However, the work is not over yet, this is only the beginning. The challenges in keeping this role will be manifold for the future. As goals are achieved new goals will emerge.

Aboriginal and Treaty rights underline the different legal and governmental levels of land designations for unoccupied Crown lands. Aboriginal subsistence and commercial activities form the first layer of use of the land. All other land allocations and developments impact this first layer (figure 17). Alternative and sustainable land developments with Aboriginal communities provide an opportunity to maintain Aboriginal and Treaty rights while at the same time deriving economic revenues from the land. Skownan First Nation has proven that this is possible.

Figure 16: Layers of Land Allocation in Manitoba



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9.6 Summary of Chapter Nine

Increased awareness of the causes and consequences of Aboriginal peoples' reserve history is needed in order to better understand First Nations' views and visions of development. In the case of Skownan First Nation the community's vision for the larger Chitek Lake Area has been for wildlife and fisheries development to provide for subsistence food and commercial incomes. The community's ideas can be directly linked to sustainable development ideas from the 1980s. The 'Skownan Model for Sustainable Development and Aboriginal Stewardship' has ecological, social and economic integrity. Sustainable development for Aboriginal communities is challenging and needs full partnership with federal and provincial governments on Crown lands. Skownan First Nation proposed a comprehensive area management approach for the entire Skownan Resource Area in form of co-management. The community initiative was rejected. However, a new co-management approach is needed. This would officially recognize Skownan's stewardship role of the traditional land-use area. The next phase of development is needed: economic development of the Chitek Lake Wood Bison Herd and the Chitek Lake Interim Protected Area in conjunction with Skownan First Nation.

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10.1 Conclusions

The dissertation offers a model for alternative, Aboriginal-directed, land-use and economic development. This study illustrates that research is significant to the development of Aboriginal communities on reserve and well as for the regional land-use planning in land and natural resources of traditional territories / unoccupied Crown lands. It has also provided evidence that government can make changes to land management plans when proposed alternative solutions are backed up by adequate, in-depth evidence. It has also demonstrated that government can make adjustments to better accommodate First Nations in relation to the land and resources. This research additionally serves to illustrate that sustainable development of wildlife resources is a viable alternative approach to contemporary land development. Effective wildlife management can be achieved through co- or joint-management with government and First Nations. With government support, First Nations can achieve and / or perpetuate significant conservation goals and economic benefits.

The Skownan Model provides a model of land protection while developing local resources for socio-economic and cultural development for Aboriginal communities. The basic concept is that the land provides for future generations building healthy communities. The spiritual connection to the land is essential to Aboriginal communities and provides a responsibility of stewardship to Aboriginal communities. This process may lead to improved communication between all parties and advances in regional land-use planning that involves Aboriginal communities. It allows entering into sustainable land and resource developments and management regimes that were not anticipated before. Research is a powerful tool in sustainable development, regional land-use planning and co-management applications that include Aboriginal communities. Similar developments are taking place on the East Side of Lake Winnipeg where Manitoba's protected areas initiative has been used by some First Nations to place a protective status

on large tracks of traditional territories before they were assigned to forestry companies. Research components that include archaeological surveys, traditional land-use studies, traditional ecological knowledge studies, wildlife studies etc. are in process to establish the necessary inventories that are needed for sustainable land-use planning that involves the local First Nation communities.

Inventory research work is time-consuming and can take years to complete. Research teams comprised of members from the community as well as from academic institutions can speed up such inventory research efforts. The establishment of research offices in Aboriginal communities would be preferable. More than ten years ago, Skownan First Nation under the leadership of Harvey Nepinak tried to establish such an office. It failed due to the lack of funding. For example, a research office (Wildlife, Lands, and Environment) that includes local Aboriginal members as well as academic researchers exists in the Northwest Territories with the Lutsel K'e Dene First Nation (Snowdrift) on the east shore of the Great Slave Lake. Funding for this office is provided by the diamond industry through a yearly compensation fee for the industrial use of parts of its traditional land-use territory. Compensation payments to Aboriginal communities for industrial use of traditional land-use territories have become a requirement of the environmental approval licensing process in the Northwest Territories. More and more research offices are being established with Aboriginal communities due to increased resource pressures on traditional land-use territories.

Skownan First Nation had demanded funding for such an office from the federal government as a contribution to the fiduciary obligation of the Crown and the Canadian Constitution Act (1982) in order to deal with the existing Aboriginal and treaty rights. Skownan tried to negotiate with the province for compensation payments by the forest industry for the establishment of a research office on reserve. All proposals for the establishment of such an office were rejected. Skownan First Nation was ahead of the times with the ideas of establishing research offices and implementing co-management

approaches. Despite these setbacks, the community was determined to find an alternative solution to the logging proposals. The researcher became an advocate for the community and worked on establishing one research component after the other. Additional academic research support came from the archaeologist and the project leaders of IISD and Vision Seekers. Academic researchers and the research process in itself are important components of the Skownan Model. The Model is flexible and fluid. It allows for different research settings involving individual researchers or teams. With time the number of research components will expand and inventories continuously built. An entire body of literature will develop over time in reference to the Aboriginal community and to the natural resources / sustainable development issues. This body of literature may become very useful to other researchers and communities around the world dealing with similar issues.

Aboriginal communities have distinct historic developments, administrative bodies and legal frameworks that are different from other rural communities in Canada. This places Aboriginal communities in a special and distinctive role in Canadian society. As described in this dissertation, the people of Skownan First Nation have a longstanding and close relationship with the larger Chitek Lake area and have been involved in development activities based largely on wildlife management and conservation projects.

All people envision better lives for themselves and “fundamental to the idea of development is the notion of improvement” (Scott 2001b, p. 3). The people of Skownan First Nation are no exception to this. They want better, healthier and more fulfilled lives for themselves, their children and grandchildren. This view was expressed many times during the ‘Appreciative Inquiry Methodology Project,’ and the ‘Vision Seekers Process’. The people of Skownan First Nation have their own ideas on how to develop the Skownan Resource Area. It represents development that is consistent with the philosophies of Aboriginal worldview and sustainable development.

10.2 Vision for the Future in Regards to the Larger Chitek Lake Area

Skownan First Nation wants to expand its economic base, but needs help in setting up the appropriate ventures. Education and management expertise is much needed to realize economic potentials. The Chitek Lake Wood Bison Herd holds promise as a sustainable economic opportunity. Hitherto, however, no band member of the Skownan First Nation has the training (as of 2005) to take on a challenging eco-tourism venture. With the 'Adult Education Program' through the 'Vision Seekers Process' it is hoped that people from the community will acquire the skills necessary to successfully engage in such and other economic ventures.

However, Bradshaw (2003) warns that small communities might not have the capacity "to manage their local resource base in order to achieve adequate and stable returns (p. 148). Lack of skills, leadership and financial resources are "a common source of failure in local resource management" (De Loë 2003, p. 136). Skownan First Nation is aware of its shortcomings in its local capacity and therefore stress the on-going partnership with the provincial government for technical and management assistance. The First Nation has asked for and accepted help in terms of academic research. The need for local training and capacity building is essential (Brundtland 1987; De Loë 2003, p. 136). The Adult Education Center, located on reserve, enhances the development of local skill and human resources in the community. The community is aware that training and follow-up community-based research processes are needed in order to establish credibility and capacity for resource management of the Chitek Lake Interim Protected Area and the Chitek Lake Wood Bison Herd.

Some of the major findings of Skownan First Nation through the 'Appreciative Inquiry Project' were that the interactions between government and First Nations continue to be inadequate. Provincial policies and First Nations land use are often not in

accord. Skownan First Nation demands that issues are dealt with a consultation process that allows for negotiations. The same requests are made in the Aboriginal Justice Inquiry (AJI) Report (1991, p. 191-192) and RCAP (1996c, p. 619-665). A major problem is that Aboriginal and Treaty rights are a federal jurisdiction whereas the management of natural resources is a provincial jurisdiction.

The main reason that Chitek Lake was accorded protected status was due to its special features and the wood bison project, not because of traditional land-use activities and related values to the people of Skownan First Nation, or because of Treaty rights. Due to Skownan's leadership role in the 'Protected Areas Program' the terms of reference for protected areas include Aboriginal and Treaty Rights now. In recent years the establishment of parks and protected areas is based increasingly on partnerships with Canada's Aboriginal peoples. The establishment of the Chitek Lake Interim Protected Area is part of this development. Similar progress is taking place in other parts of the world (Stevens 1997; Twyman 2000).

Skownan First Nation is of the view that the provincial 'Integrated Resource Management Teams' (IRMT) have managed to achieve greater cooperation between government departments dealing with natural resources but have failed to effectively integrate Aboriginal natural resources issues. Skownan First Nation has repeatedly proposed to deal with the natural resources issues for the entire Skownan Resource Area in an area-based resource management system in order to allow for the Aboriginal values to be integrated into management (Nepinak 1997, *pers. com.*).

Skownan First Nation's position is that Manitoba Conservation has an obligation to create mechanisms that will enable processes to continue with sustainable development in the Skownan Resource Area. Skownan First Nation faces numerous future challenges in relation to the Skownan Resource Area, from government, industry and surrounding First Nations and, indeed, its own population growth.

10.3 Recommendations for Programming Implementations and Future Research

The challenge is to combine and interweave scientific and traditional knowledge to produce realistic yet culturally sensitive strategies for the sustainable management of natural resources. Multi-sourced insights can result in understandings that can generate economic, social and political benefits to local populations and society at large (Briggs *et al.* 1999).

Small Aboriginal communities in Canada need consistent and on-going help to work through the many issues related to land and resources surrounding their communities. Real consultation, co-management and sustainable development must occur. Community development, healing and educational programs need to be implemented. Most people in western society cannot thrive without these forms of support but Aboriginal communities are expected to do so. Outstanding issues that are at the core of Aboriginal communities need to be resolved. Co-management arrangements in the spirit of sustainable development and Aboriginal worldviews can achieve new ways of wildlife and land protection. In addition economic development for local Aboriginal communities can be realized. Skownan First Nation has achieved a remarkable level of success with its wildlife management and species conservation projects under difficult political circumstances. One can only imagine how much more successful wildlife conservation and economic development in the larger Chitek Lake Area could be if genuine co-management strategies for sustainable development were implemented.

The following recommendations for development and research are specific to Skownan First Nation, the issues surrounding the Chitek Lake Protected Area, and the Chitek Lake Wood Bison Herd.

1. A working group representing Skownan First Nation and the Parks Branch must be created in a co-management fashion in order to deal with the on-going management issues relating to the Chitek Lake Interim Protected Area.
2. The 'Chitek Lake Wood Bison Management Plan Working' group must be revitalized. Policy and action plans for herd management need to be developed. The herd is growing rapidly, and likely expansion into the local farm community at Salt Point should be forestalled. Hunting and live-trapping programs need to be developed for animals that venture into the agricultural zone.
3. Research into the growth and expansion of the Chitek Lake Wood Bison Herd is needed for management purposes. Radio and satellite (GPS) tracking of animals is needed to monitor herd movements.
4. Development of eco-tourism, guiding and hunting businesses with band members require education and development.
5. Research is needed to better determine the potential of the local fishing industry, and to facilitate co-management strategy decisions that will make it highly profitable and sustainable. Water quality and water flow research is needed to more fully understand the lake regimes.
6. The Province of Manitoba and Skownan First Nation must enter a meaningful co-management process for the larger Chitek Lake area in order to deal with increasing hunting pressures due to local population growth and to ensure that fundamental conservation requirements and the increasing First Nations demands are met in accordance with the Canadian Constitution (1982).
7. More archaeological research is needed in the Skownan Resource Area, especially in the southern and western parts.
8. An archaeological excavation of the Wade Point pottery site should be conducted.
9. Further archival research is needed for the period from 1800 to the 1930s.
10. Research into a possible land-claim for Skownan First Nation in the larger Chitek Lake area north of the Treaty Number 2 line is needed. At the time of the Treaty, the people believed that the land north of the boundaries of Treaty Nos. 1 and 2 would remain un-ceded. Skownan First Nation was not part of the negotiations or signatory to Treaty 5 in 1875 and did not surrender its northern traditional land-use area through Treaty. The southern boundary of Treaty 5 coincided with the northern boundaries of Treaties 2 and 3, so as not to leave any un-ceded territory between treaty boundaries (Stock 1996).

Research and development in a variety of areas is needed to further land and wildlife protection as well as economic development in the larger Chitek Lake Area.

Paradigms of sustainable development and Aboriginal worldviews offer multiple pathways. They will vary for the different Aboriginal communities depending on specific geographic settings. The model suggested here is co-management initiatives and ongoing negotiations between Aboriginal communities and provincial / territorial and federal governments for land and natural resources as well as wildlife conservation and land protection developments for the benefit of Aboriginal communities as well as for the larger society. Sustainable development is dependent on the political will and cooperation of government.

10.4 Summary

In September 1996, Skownan First Nation perceived itself to be in a desperate situation in regards to its traditional territory. The community was determined to find an alternative solution to proposed logging and road development plans and, most importantly, to protect the Chitek Lake area from incursions by their proponents. At that time, there were no mechanisms in place for such an undertaking. Research procedures were identified to facilitate progress in this direction. The drive of this research was to assist Skownan First Nation in devising strategies pertaining to anticipated land and resource developments within its traditional land-use territory. The theoretical framework of this dissertation is set in sustainable development and Aboriginal worldview. Sustainable development is founded in the philosophy of using resources to meet present and future needs. Fundamental to Aboriginal worldviews is the spiritual core of human existence on earth in close relationship to the land with all its resources. If the land is cared for from the perspective of spiritual values it will always provide. Aboriginal people are the stewards of the land with its resources.

The main objectives of this dissertation were: to conduct a literature review on sustainable development in conjunction with Aboriginal worldviews; to assess Manitoba's protected land areas initiative; to evaluate the community-based research approach; to demonstrate that archaeological, cultural and sacred sites exist in the Chitek Lake area; to establish a historical overview of the Chitek Lake area and the Skownan First Nation, to find a way to protect Chitek Lake; to research, facilitate and document the processes and events leading up to protection; to develop a wood bison model and status plan; to identify the values and visions of Skownan First Nation, and to develop the Skownan Model for sustainable development in the larger Chitek Lake Area.

The researcher, together with the community of Skownan First Nation, embarked on a 'community-based' strategy to deal with externally imposed development issues arising in the Skownan Resource Area since 1989. This dissertation was developed within this context, applying community-based, 'community participation research' (CP), participatory action research methodologies. Methods included group and individual discussion, interviews, direct observation as well as empirical computer modeling. The chosen methodology and methods are consistent with contemporary practices in research involving Aboriginal communities worldwide.

Aboriginal peoples have been living in Manitoba for approximately the past 12,000 years. Early cultures in southern Manitoba included 'Early Big Game Hunters' that sought after mammoth (*Mammuthus ssp.*) and later giant bison (*Bison latifrons*). By approximately 5000 B.C., the glacier and Lake Agassiz had disappeared from Manitoba and the interior of North America was desert-like. Conditions in Manitoba were warmer and drier than experienced today. A vegetation-reconstruction (based on fossil-pollen studies) at about 6000 years ago (4000 B.C.), places the Waterhen-Chitek Lake region into a parkland/prairie environment (Shay 1984). It is thought that bison and early hunting cultures occupied the area. Bison bones and skulls have been found in areas around the Waterhen-Chitek Lake region. From approximately 800 A.D. to the historic

time of contact, numerous groups occupied southern Manitoba, called the 'Woodland Pattern.' Their presence is indicated by a wide variety of pottery wares. An unexcavated pottery site lies twenty kilometres west of Chitek Lake on the shores of Lake Winnipegosis. The 'Chitek Lake Archaeological Survey' was an 'exploration' or 'reconnaissance' ground survey. It established that archaeological, cultural and sacred sites exist in the Chitek Lake area. Seventeen sites and a number of distinctive stone artifacts were discovered. It was not possible to date the sites and artifacts.

Many generations of the Skownan First Nation have utilized the Skownan Resource Area. They were present in the area since before the treaties. Skownan First Nation is signatory to Treaty Number Two, signed in 1871. With the signing of the treaties and the decline of the fur trade, a diverse frontier economy developed in southern Manitoba with commercial fishing, lumbering, agriculture, ranching, road and railroad construction. It was 'the golden time of the Interlake and Westlake areas.' The Native people were a significant workforce at that time. The depression of the 1930s created instability for Native people in Manitoba. Elders of Skownan First Nation remembered the hard and poor times of the 1930s and 40s. Treaty hunting, trapping, fishing, and gathering for personal consumption as well as gardening and cattle ranching were essential for survival during the great depression (Catcheway E. 1998, Catcheway M. 1998, Nepinak B. 1998, all *pers. com.*).

With the beginning of the twentieth century, conservation efforts began in the Prairie Provinces. The main interest groups were sports hunters, sports fishermen and naturalists who were keen to protect game, fish, and bird populations for their own pleasure. In 1930, with the Natural Resources Transfer Agreement Acts, federal control over natural resources was transferred to Manitoba, Saskatchewan and Alberta, without consultation of the affected Aboriginal peoples. The Aboriginal peoples of these provinces perceive this as a violation of their Aboriginal and Treaty rights. In the early 1950s, the Skownan Fur Block was established in a co-operative effort between Skownan

First Nation and the Provincial government in order to restore beaver populations and to protect local Native trappers from outsiders. Skownan First Nation also developed a number of other wildlife conservation agreements (Skownan Moose Management Agreement and the Waterhen Wood Bison Project). The community also engaged in building a successful commercial fishing industry at Chitek Lake and Inland Lake.

For the people of the Skownan First Nation the Treaty commitments concerning hunting, fishing and trapping rights continue to exist, regardless of other subsequent uses. In the Constitution Act in 1982, Canada recognized and affirmed existing Aboriginal and Treaty rights¹. Existing Aboriginal and Treaty rights are fundamental to the development of a management plan and the establishment of a fully protected area at Chitek Lake. Equally important are Aboriginal and Treaty rights outside of the Interim Protected Area. The forest and its resources have been and continue to be vital to the livelihood of the people of Skownan First Nation.

In 1989, the pulp-and-paper company Repap obtained Manfor Ltd. (Manitoba Forestry Resources Ltd.) from the Government of Manitoba. As a result of the change of ownership and expansion of the operating area, Repap prepared a revised version of the Manfor 1988-1992 Five Year Forest Management Plan (FMP). The revised plan detailed the harvesting and reforestation operations as well as related road development activities. A major all-weather road (Pickerel Lake Road) was proposed through the Chitek Lake area. The Skownan First Nation has been opposing the development of all-weather roads since 1989. A traditional land-use study and environmental impact assessments were conducted (Stock 1996). In the spring of 1997, Repap was sold to Tolko - a B.C. based pulp-and-paper company. In October 1997, the Clean Environment Commission Hearings were held at The Pas and Winnipeg. Skownan First Nation presented its impact assessment findings at the Clean Environment Hearings. It was the impact on wildlife

¹ S. 35.(1) of the Constitution Act of 1982.

that was significant to the Commissioners. Impact on community or treaty rights was of minor significance.

Pursuant to the Hearings, the Pickerel Lake Road was not approved. The Commissioners recommended that two non-interconnected winter roads be authorized, to minimize negative impacts in the Chitek Lake area (Manitoba Environment 1997). Manitoba Environment issued an order in accordance with the recommendations of the Clean Environment Commission (CEC). Tolko appealed the decision to the Department of Environment, without success.

In 1992, the 'Natural Lands and Special Places Policy' initiative outlined a framework for a network of protected areas in Manitoba (Manitoba Natural Resources 1996). In February 1994, the first 'Action Plan for Manitoba's Network of Protected Areas' was released by the 'Sustainable Development Coordination Unit' to direct the establishment of a network of protected areas across Manitoba. A second 'Action Plan for Manitoba's Network of Protected Areas,' based on 'natural-region-representation' science was published in 1996 by 'Manitoba Parks and Natural Areas Branch' (Manitoba Natural Resources 1996).

In January 1998, Skownan First Nation requested the establishment of a protected area at Chitek Lake. Skownan First Nation was the first Native community in Manitoba to forward a Band Council Resolution to accept the establishment of the interim protected area in collaboration with the Manitoba Parks Branch. On April 1, 1999, the 'Chitek Lake Interim Park Reserve' (100,400 ha) was established under the 'Provincial Parks Act' as a park reserve by an 'Order-in-Council': in effect until March 31, 2004 (plus six month – September 2004). The 'Poplar River Interim Protected Area' (750,000 ha) was established at the same time. Within the interim-reserve timeframe, large-scale resource extraction activities such as mining, logging, oil, gas and hydro-electric developments are prohibited. Existing Aboriginal and Treaty rights are upheld and traditional land-use activities continue as before. The interim park reserve serves to protect most of the

current range of the wood bison in the Chitek Lake area. Final boundary definition and the development of a park management framework are needed to move the Chitek Lake Interim Protected Area into permanently protected status. The first meetings in this direction were held in June, 2002. Due to political changes in the provincial government and at the band level through elections, the process of developing a management plan to reach a permanently protected status has slowed down. The first round of public consultation took place from the fall of 2003 to the spring of 2004. Three public meetings were held in Winnipeg, Portage la Prairie and Waterhen. Overall, the response was in favour of the establishment of the protected area. The second round of public consultation started in May 2004. The interim protected status has been extended until 2009.

In 1983, the Waterhen Wood Bison Project was inaugurated. Its major objectives were, to develop a commercial wood bison ranch, and to establish a free-ranging herd for future economic uses (Payne 1987). In all, 22 wood bison were released, 13 in 1991 and 9 in 1996. The community's wildlife conservation project is integrated with the National Wood Bison Recovery Program. The animals bred successfully in the wild, and the population increased to approximately 250 in 2004. The Chitek Lake Wood Bison Project features an endangered species in an endangered space and presents a significant contribution to development and conservation at the same time. A Chitek Lake wood bison model and status plan was developed for this dissertation. Population growth with and without mortality factors, as well as potential range expansion as numbers increase were extrapolated. The entire Skownan Resource Area is deemed essential to the successful continuation of the Chitek Lake Wood Bison project. With the entire land area, the Chitek Lake herd has the ability to contribute to the Canadian wood bison recovery program with an ultimately stable herd size of 400 animals. The herd is expected to reach 400 animals by 2007, at which time 'maintenance-culling' for the benefit of the community could commence. The actual population growth is in accord

with the predictions of the model.

Skownan First Nation has worked on co-management initiatives since the establishment of the Skownan Fur Block since the early 1950s. All initiatives fit into the paradigm of sustainable development. A co-management initiative in an area-management approach for the entire Skownan Resource Area was proposed by Skownan First Nation. However, government rejected this proposal. This study suggests that further co-management initiatives and on-going negotiations between the community and the provincial government are needed in order to deal with wood bison and protected areas management issues. Sustainable development is dependent on the political will and cooperation of government.

The results presented here were pursued within the parameters of sustainable development, Aboriginal worldview and community development. Future challenges, in terms of resource extraction demands, protection and management issues will have to be dealt with on an ongoing basis. This research, and the resulting dissertation are intended to extend useful insights that may be applied to advance the processes of land development and management in the Skownan Resource Area and elsewhere. As research goals are reached new research goals will emerge. Long-term cultural, social and economic benefits can be generated for First Nations if land management is modified to accommodate culturally appropriate solutions, with no diminution of ecological and economic long-term benefits for society-at-large.

The foundation of the model is based in the view of Skownan First Nation that as long as the land exists in its natural state it will carry wildlife populations and provide for Native people. Native people have the responsibility to protect and care for the land. This defines the stewardship role of Skownan First Nation. The Skownan Model at its core involves using protected area status as a legal vehicle to ensure sustainable use of traditional lands.

In the case of the Skownan First Nation, the effort to protect the land has resulted in the strengthening of cultural, social, economic and environmental values. The people of Skownan First Nation have refined and strengthened their cognitive mental map and their spiritual, cultural and socio-economic values of the Chitek Lake area with the help of academic research.

10.5 Concluding Remarks

The findings in this research, essentially the Skownan First Nation Model for Sustainable Development and Aboriginal Stewardship, offers immediate application to land and resource based communities as well as to planners and facilitators. The model can be used as a tool for cross-cultural understandings in Aboriginal communities, academia, governments, and industries. Canadian governments have a responsibility to Aboriginal Canadians as well as to all Canadians – to implement sustainable development while maintaining Aboriginal stewardship. This research provides one potential blueprint.

“No single blueprint of sustainability will be found, as economic and social systems and ecological conditions differ widely among countries”
(Brundtland 1987, p. 40)

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Appendix

Definition of Terms

Over the years, Aboriginal agencies and researchers in Canada working on land related issues have developed a terminology that is commonly used throughout the publications. Certain terms have a legal meaning and are referenced to the appropriate legal literature. To facilitate understanding of the terminology used in this dissertation the following definitions are provided:

Aboriginal people: used in reference to Canada's Aboriginal people: the Indians,

Inuit and Métis peoples are referred to collectively as the 'aboriginal people of Canada' in the Constitution Act, 1982 (Woodward 1989).

Band: a band is a 'body of Indians' that has a reserve within the meaning of the Indian Act (Woodward 1989).

Band Council Resolution: a form entitled 'Band Council Resolution (B.C.R.)', produced by the Department of Indian and Northern Affairs. The form is used to record band council decisions. A meeting of Chief and Council has to take place before the signing of a Band Council Resolution (Woodward 1989).

Chitek Lake Area: is the general Chitek Lake area without referring specifically to the Chitek Lake Protected Area.

Chitek Lake Protected Area: It is the same as Chitek Lake Interim Protected Area in the context of this dissertation. Established in April 1, 1999 until March 31, 2004.

Contemporary land-use: refers to land-use practices that were introduced by European settlers and western society, such as cattle ranching, mining, forestry operations, hydro-electric and tourism developments, and the establishing of National and Provincial Parks and other forms of protected areas.

First Nation: in recent times, 'Indian bands' have chosen to describe themselves as 'First

Nations'. Band is the formal term defined in the Indian Act. Either term will be used, where it is appropriate to do so.

Interim protected area: “Designation of Crown lands as a park reserve for a period of six months, during which time public consultation must take place. After consultation has taken place, the park reserve designation may be renewed for a further period of five years” (Manitoba, 1993). Interim protected areas are protected from logging, mining or the development of oil, petroleum, natural gas or hydro-electric power. Aboriginal and Treaty rights continue to exist and traditional land-use activities such as hunting, fishing, trapping and gathering are on-going.

Occupancy: refers to the occupation, through land-use, of a certain territory surrounding an Aboriginal community.

Protected area: a general term that includes all categories of protected areas, such as national and provincial parks, wildlife management areas, ecological reserves, heritage rivers, etc. By the standards of the Endangered Spaces Campaign, an area is only classified as a protected area when it is protected from logging, mining or the development of oil, petroleum, natural gas or hydro-electric power.

Reserve: is a tract of federal Crown land in which the aboriginal interest is permanently preserved for a particular group of native people; the legal title is vested in Her Majesty and the land is set apart by Her Majesty for the use and benefit of a band (Woodward 1989).

Resource area or territory: the geographic land-base of an Aboriginal community, including the resources that support the traditional land-use activities (Stock 1996). The land is legally vested in the Federal (Territories) or Provincial Crown (Provinces) (Woodward 1989).

Skownan Resource Area: or Waterhen Resource Area, both are interchangeable, comprises the traditional land-use territory defined by Skownan First Nation

(Stock 1996). It is located between Provincial Highway # 6 to the east, Provincial Highway # 60 to the north, the eastern shore of Lake Winnipegosis to the west and the northern shores of Lake Manitoba to the south.

Skownan Fur Block: established in the 1950s by the Province of Manitoba in cooperation with local trappers to regulate trapping. The Skownan Fur Block is smaller than the Skownan Resource Area (see Figure 4 in Stock 1996).

Subsistence economy: produces foods and goods for direct consumption; includes local and regional small-scale trade activities. They include moose hunting, domestic and commercial trapping, domestic and commercial fishing, gathering of plants and plant products for domestic and commercial use, etc.

Traditional land-use: defines Aboriginal hunting, fishing, trapping and gathering activities; technology and methods may have changed with time, whereas the activity as such remains the same. 'Land-use' extends to aquatic environments.