

# INSTITUTIONALIZED ADAPTATION: ABORIGINAL INVOLVEMENT IN LAND AND RESOURCE MANAGEMENT

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## **Abstract / Résumé**

Examples from across Canada have shown when the exploitation of lands and resources grow in profitability, the cultural landscape of Aboriginal communities stands at risk unless a process of exclusion or a means of adaptation can be established. As a means of adaptation, Aboriginal communities are entering into cooperative management agreements with government and industry in an attempt to regain access and influence over the lands and resources that continue to sustain their culture, economies, and distinctive ways of life. The Whitefish Lake Cooperative Management Agreement, signed between the Whitefish Lake First Nation and the Alberta provincial government, is such a process and serves as an ethnographic example throughout this paper.

En prenant exemple sur des précédents à travers le Canada, on apprend que lorsque l'exploitation des terres et des ressources devient plus rentable, le milieu culturel des communautés autochtones se trouve menacé, sauf que si une stratégie d'exclusion ou d'adaptation puisse être mise sur pied. Face à cette situation, les collectivités autochtones s'emploient à conclure des ententes de cogestion avec les gouvernements et les entreprises en vue de regagner leurs droits d'usage et un certain contrôle des terres et des ressources qui sont à la base de leur culture, leur économie, et de leurs pratiques traditionnelles de vie. L'entente de cogestion Whitefish Lake, conclue entre la Première nation Whitefish Lake et le gouvernement de l'Alberta, reflète une telle stratégie, et sert d'exemple ethnographique dans le présent article.

## Introduction

The community of Whitefish Lake is located on the west and north shores of Utikuma Lake in north-central Alberta, Canada (Indian Reserves 155, 155A, 155B). The 1,400 members of the Whitefish Lake First Nation (WFLFN) represent the western extreme of the Strongwoods Cree division. Located north of the Saskatchewan River, the WFLFN inhabit a predominately boreal forest environment with transition zones south to the prairies and west to the Rocky Mountain foothills. The forest cover is made up principally of aspen, balsam poplar, jackpine, white and black spruce dispersed among a diversity of wetlands, peatlands, lakes, and streams.

Owing to the ecological characteristics of the boreal environment Whitefish Lake Band members have become well accustomed to conditions of resource uncertainty. Because resources in the boreal forest tend to be localized in specific areas rather than scattered and distributed evenly, Whitefish Lake residents can be characterized as people constantly coping with problems of resource availability. Because of this, competition over valued resources, whether with neighboring First Nations or settler populations, has long been a consideration of the subsistence harvester. However, unlike the competition of the past that occurred generally along shared borders or territorial edges, the pressure that is now being placed upon the Whitefish Lake territory is occurring not on the periphery but rather in the heart of the Whitefish Lake territory.

Over the last four decades, the traditionally used territory of the WFLFN has been targeted for the extraction of both renewable and non-renewable natural resources to the extent of limiting all other forest uses, including the traditional land use patterns of Whitefish Lake residents. As a result of industrial and regulatory impacts, the WFLFN has found itself nested within a landscape of competing and dominating interests that have failed to recognize the cultural significance of the land in the formation of the Whitefish Lake identity. Owing to the interplay of interests that have come to exist within the same geographical landscape, and because access to lands and resources remains fundamental to Cree culture, Whitefish Lake has recognized the need to establish an interdependent relationship with competing interests or risk continued marginalization or possible displacement. Accomplished through the Whitefish Lake Cooperative Management Agreement, the reordering of existing social relationships has provided an institutional space to articulate local land use concerns, has facilitated local involvement in the land management process, and has established mechanisms of self-empowerment through which the acquisition of knowledge, skills, and economic self-sufficiency can provide a wider range of options for Whitefish Lake to call upon when dealing with competing interests.

Viewed in this context, the Whitefish Lake Cooperative Management Agreement represents a coping mechanism or a way of dealing with people and resources to attain goals and overcome immediate and future obstacles. Whether regarded as a process of adjustment or a means of compromise, institutional change ultimately rests on a behavioral adjustment among individuals and/or groups in the course of realizing goals, goals that in this analysis include achieving a measure of influence over traditionally used lands and resources.

Central to this analysis is the concept of the ecological niche. The ecological niche has been a widely and inconsistently used concept in anthropological research. Odum (1959), followed by Geertz (1963), has compared the niche to the profession or a way of life of the organism while noting that the habitat is equivalent to its address. Coe and Flannery (1964) define the niche, or microenvironment, as a culturally and physically delimited segment of the gross habitat that contains a resource or set of resources used by a human population, such as an estuary, grove, or cultivated field. Similar to Coe and Flannery's microenvironment, Barth (1969) defines the niche as a position in the environment as if it were a segment in the human habitat. However, Barth's departure from Coe and Flannery is in his emphasis on human relations that function within that delimited environment. According to Barth (1969:19) where two or more ethnic groups are in contact, their adaptations may include the following characteristics: 1) the groups may occupy distinct niches in the natural environment and be in minimal competition for resources; 2) they may monopolize separate territories, in which case they are in competition for resources and their articulation will involve politics along the borders; 3) they may provide important goods and services for each other (i.e., occupy reciprocal and therefore different niches but in close interdependence); and, 4) the two groups are in at least partial competition within the same niche. It is Barth's contention that this type of relationship will result ultimately in the displacement of the subordinate group, or an accommodation involving an increasing complementary or interdependent relationship will develop. Thus for the purpose of this analysis the ecological niche is best framed as "the place of a group in the total environment, and its relation to resources and competitors" (Barth, 1956:1079).

The environment with which we are concerned consists of two basic niches for adaptation. The first is the niche of the Whitefish Lake community, which consists of the living conditions that promote a particular way of life (i.e., hunting, fishing, trapping, and gathering). The second niche consists of the natural resources (i.e., timber, minerals, oil/gas) that are exploited by the industrial society. Using Barth's concept of the niche I am distinguishing

the differential use of resources by each group within the same geographical area. The adaptive strategy of one group must, therefore, consider not only the characteristics of the physical environment but also the strategies employed by neighboring competitors (Bennett, 1969). Although these groups are not competing directly for the same ecological niche, the exploitation of one niche by the dominant group (state/industry) will to a large extent affect the other, resulting in a direct alteration of that particular way of life (Svensson, 1983). This distinction is similar to Grambling and Freudenburg's (1996:362) example of how large-scale strip mining operations in Wyoming utilize a given niche in a very different way than ranchers who live in the same region, or for that matter naturalists who would prefer to see the same area devoted to hiking or as a wildlife refuge. Thus differing forms of resource use will vary to the extent in which a given niche can be used by others, whether at the same time or subsequently (Grambling and Freudenburg, 1996:362).

It is important to note that the competing interests that function within this delineated environment also constitute two distinct forms of economy that are based on diverging forms of sustainability. The industrial society, whose interests emphasize profit maximization and economic gain, tend to be guided by the normative values of the group; that is, economic growth is essential. For the Cree of Whitefish Lake, interest in the land base is not solely motivated by their need for a collective means of subsistence, but is also intimately linked to the landscape as it has come to define their collective and individual identities. Within the traditionally used territory of the WFLFN now exists a number of competing interests that have influenced the land and resource use of Whitefish Lake residents. As a result, each of these interests have individually and collectively influenced the adaptive strategies of the WFLFN.

## **Resource Competition**

Although it had generally been believed that the western Cree represented a late 18th and early 19th Century westward migration from the eastern regions of Lake Winnipeg, research (Ives, 1993) has shown that the WFLFN, as well as the other Strongwoods Cree First Nation, had long been present in the area, perhaps since 900 A.D.

Throughout the 19th Century the WFLFN maintained a seasonal mobility pattern. Depending on resource availability, Band members distributed themselves accordingly, whether in response to long term resource changes or temporary resource fluctuations. Seasonal residency patterns consisted of summer months living in tents along the northwest shore of Utikuma Lake where their horses could graze and women and children

could fish and snare small game. The men, using the summer camp as a base, would pursue moose and deer along the lake shore and nearby wetland areas, enabling them to return to camp each night. This was also a time of socialization and a time to reinforce social bonds. Nearing the end of summer and early fall, Band members would begin preparing for winter by drying moose meat and fish and storing berries for the months ahead. With preparations complete, Band members would break into family units and disperse throughout their winter trapping territories.

In 1820, seasonal residency was altered somewhat owing to the establishment of a Hudson's Bay Company post on the northwestern shore of Utikum Lake. Although some families chose to be oriented near the post, the overall mobility of Band members remained to a large extent unaffected. However, nearing the end of the 1800s changes in Whitefish Lake's mobility began to occur as growing numbers of European settlers, and ultimately treaty negotiators, entered the Whitefish Lake territory.

For nearly a decade before the signing of Treaty Eight (1899) the Government of Canada debated the merits of coming to terms with the Indians from the Lesser Slave Lake and upper Peace River area (Leonard, 1995:16). However, after recognizing that the area housed sufficient natural wealth (mineral and agricultural potential) a treaty arrangement was believed to be advisable. Word of the proposed treaty arrangement was, however, met with considerable apprehension and resistance by First Nation leaders. Whitefish Lake in particular refused to enter into treaty negotiations with the Government of Canada and was considered generally "hostile" to the entire treaty process.<sup>1</sup> One of the primary concerns of Whitefish Lake, as well as other First Nation groups in the area, was the enactment and enforcement of fish and game regulations by government officials and the disruption that would result to their traditional ways of life. In addition, the establishment of Reserves was seen as a major threat to their continued seasonal mobility, a mobility pattern that was integral to the Whitefish Lake culture. Concerns regarding the centration and sedentary policies of the Crown were also expressed by one Indian Affairs official, J.A. McKenna, who confided:

...as the country is not one that will be settled extensively for agricultural purposes, it is questionable whether it would be good policy to even suggest grouping them in the future. The reserve system is inconsistent with the life of a hunter...<sup>2</sup>

Despite their expressed concerns, Whitefish Lake entered into treaty in the summer of 1901, with the guarantee that:

... there is no intention to make you live on them [Reserves] if you do not want to, but, in years to come you may change your minds.<sup>3</sup>

With the further assurance that:

... your forest and river life will not be changed by the treaty, and you will have your annuities, as well, as long as the sun shines and the earth remains.<sup>4</sup>

Despite the promises made by government negotiators, their assurances were promptly superseded by a system of paternalistic Reserve administration that extinguished any claim to territorial rights. Because the Reserve system was seen as an interim measure advanced by the federal government for the purpose of assimilation (e.g., Friesen, 1987; Elias, 1991; Miller, 1991), the right to resources off-Reserve was never considered essential to the economic development of the Whitefish Lake community. Consequently, Whitefish Lake had been given no authority on the basis of Aboriginal title<sup>5</sup> nor on the basis of customary use to regulate access to resources within their traditional territory. As a result, the lands that have fallen outside Reserve boundaries, lands which—from a community perspective—represent their traditionally used and occupied territory, are now recognized legally as unoccupied provincial Crown lands. Considered, by government, to lack “productive” uses these lands are made largely available to development initiatives deemed to be in the public’s best interest (Hrenchuk, 1993).

Lacking regulatory control over off-Reserve lands and resources, coupled with the growing global demand for energy and natural resources, Whitefish Lake first began to encounter resource developers in the mid-1950s. Arriving in “large trucks”, oil workers began clearing exploratory seismic lines on the south and northeastern shores of Utikuma Lake. Owing to the difficulty of travel, as well as the expense associated with the development of this still remote area, only a few wells had been established north of Utikuma Lake. However, by the 1960s, seismic activity and road access had begun to reach some of the most remote areas of the Whitefish Lake territory.

With the completion of an all-weather road that extended north from the community of Slave Lake (now Rt. 88), a network of industrial access roads soon spread throughout the Whitefish Lake territory. Since this time, the industrialization of Whitefish Lake’s traditionally used territory has intensified to the point of limiting all other forest uses. Within this region now exist approximately 875 petroleum wells, 127 petroleum depots, numerous hazardous waste sites, and a supporting infrastructure of primary and secondary access roads, pipelines, electrical powerlines and seismic ex-

ploration corridors. In addition to oil and gas development, the Whitefish Lake territory has come under increased pressure from the timber industry. As of 1997 the annual allowable cut for the S-9 Forest Management Unit (FMU) is 160,000 m<sup>3</sup> of conifer and deciduous timber (Tolko Ltd., 1997). To compound the effects of this industrialization, "No Trespassing" signs have been post warning local residents of these now private industrialized areas.

As noted above a residual effect of the industrialization of the Whitefish Lake territory has been the development of an extensive infrastructure of primary and secondary access roads, right-of-way corridors, and seismic lines that have effectively opened up and made accessible even the most remote areas of the Whitefish Lake territory. As a result of this increased accessibility Whitefish Lake residents have experienced growing competition from non-Aboriginal hunters over declining numbers of moose and other game species.

With the growth of the regional population, non-Aboriginal sportsmen are being attracted from the nearby communities of Slave Lake and High Prairie, as well as the provincial centers of Edmonton, Red Deer and Calgary. Further, non-Aboriginal outfitters are hosting a growing number of US, European, and Asian sportsman who have further "saturated the backyard" of the WFLFN with additional hunting pressure (Northern Moose Management Program Progress Report, 1998 [NMMPPR]). While harvest figures for guides and outfitters can be tabulated, it has proven difficult to ascertain accurate figures for the total harvest of game species owing to the limitations common to survey methodologies. Because of this, total harvest figures can only be estimated. However, since 1993 the Natural Resource Division of Alberta Environmental Protection has initiated the Northern Moose Management Program (NMMP) in response to the declining moose population in northern Alberta. Funded through the Fish and Wildlife Trust Fund, the NMMP is developing and enacting measures in an effort to reverse the declining moose population that ranges throughout the Whitefish Lake territory. To date, however, the moose population in the Whitefish Lake territory remains in serious decline. According to Band members this decline is believed to be a result of several interrelated factors which include increased hunting pressure from recreational hunters, growing access to remote areas facilitated by road development, and an overall decline of productive moose habitat resulting from industrial development.

Placing an additional limitation on Whitefish Lake's land use has been the establishment of the Gift Lake Métis Settlement in the western region of the Whitefish Lake territory. As it applies to land use conflicts, Métis Settlements represent somewhat of an anomaly. That is, only in Alberta

Table 1: Sport Harvest Data (Heckbert, 1999)

WMU <sup>1</sup> 544, 542, 520	1997	1996	1995	1994	Total
Moose	322	209	306	280	1117
Black Bear	X	16	51	35	102
Mule Deer	17	0	28	15	60
White-tailed Deer	85	48	123	141	397

<sup>1</sup> The traditional territory of the WFLFN is provincially managed as three distinct Wildlife Management Units (WMU 544, 542, 520).

have the Métis succeeded in establishing their own communal land base. Through the Métis Betterment Act of 1938/40 more than 500,000 hectares (1.25 million acres) of land have been provided along with hunting and fishing rights, socio-economic benefits, and health programs for Alberta Métis (Notzke, 1994:186).

While serving as a major advancement for the Métis, the establishment of Metis Settlements has had significant impact on the contemporary land use patterns of neighboring First Nations and particularly on the land use patterns of the WFLFN. Adjacent to Utikum Lake, the Gift Lake Métis Settlement is bounded by Peavine Métis Settlement to the west and the Whitefish Lake Reserve (R. 155) to the east. Comprising a 83,916 hectare (207,273 acres) land base, Gift Lake represents the second largest Métis Settlement in Alberta (McCully and Seaton, 1982:16).

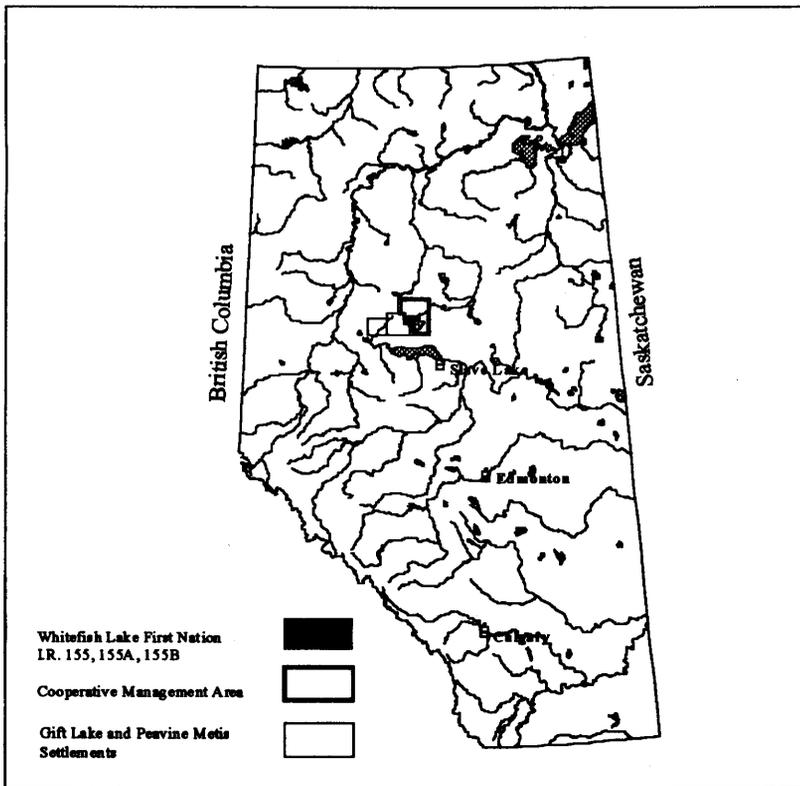
Although the signing of Treaty Eight has assured Whitefish Lake of the continued right to hunt, trap, and fish for food in all seasons of the year on all unoccupied Crown lands, Métis settlement lands have been classified as private lands administered by the province, thereby withdrawing them from First Nation access. Thus the establishment of the Gift Lake Settlement subsequently removed 839 km<sup>2</sup> (324 mi<sup>2</sup>) of land and resources from the use of Whitefish Lake residents despite its representing a significant portion of their traditionally used and occupied territory.

## Cooperative Management

Recognizing the limitations of the provincial land-tenure system as well as the perceived strain being placed on local lands and resources resulting from that system, the WFLFN long pursued a greater role in the institutional management of their traditional lands. Despite their efforts, gaining any measure of influence over off-Reserve lands and resource had been met with considerable resistance and little success. However, in 1985 opportu-

nity finally presented itself. At this time it was recognized by Whitefish Lake that when their Reserves were established (1908) the Crown had failed to administer a land base to which the Whitefish Lake Band had legally been entitled. Thus, in 1985 the WFLFN submitted a Treaty Land Entitlement Claim to the Government of Canada. In April of 1986, the Treaty Land Entitlement Claim was validated by the Crown, resulting in the ratification of a Memorandum of Intent in November of 1988.

In addition to providing a supplementary land base and financial settlement, Whitefish Lake was successful in negotiating a clause within the Memorandum that indicated that the province of Alberta and the WFLFN would enter into discussions regarding cooperative approaches to land, wildlife, and fisheries management in the area surrounding the Whitefish Lake Reserve (2,700 sq. km.) (see Figure 1). Through these negotiations, the WFLFN was successful in establishing the only First Nation—Province of Alberta Cooperative Management Agreement to date, as recognized under the terms of a treaty land entitlement claim. Signed in 1994, this agreement is in the form of a Memorandum of Understanding (MOU)



**Figure 1**

between Alberta Environmental Protection, Alberta Aboriginal Affairs, and the WFLFN.

The vehicle used to fulfil the objectives of the MOU is the Implementation Plan for the Cooperative Management Agreement. Developed jointly by the WFLFN and the province of Alberta, this plan represents the framework for discussion between the WFLFN and the province leading towards the cooperative management of lands and resources. Following four years of negotiations and political maneuvering, terms of reference and objectives for the Whitefish Lake Cooperative Management Agreement were finalized and implementation began in January of 1998.

Administering the implementation and operation of the Agreement is the Cooperative Management Implementation Committee. This committee is comprised of three representatives from the WFLFN and three senior regional representatives from the Department of Environmental Protection, as well as designated support staff and other government and non-government representatives. The Implementation Committee is responsible for establishing work plans, working procedures and operating guidelines as well as for establishing and overseeing specific working groups that may be created to address specific management issues. In general, the Committee mandate calls for cooperative approaches to land and resource management through the identification of key resource management issues, establishing an equitable process to address those issues, and for recommending processes leading towards resolution—including policy interpretation and changes in policy that may be required to achieve agreed upon objectives. The Committee is also responsible for the long-range management planning of fish, wildlife, and timber resources and to cooperatively develop future forest management plans. Additionally, because education, training and economic development opportunities are seen by both Whitefish Lake and the province as being central to the cooperative management process, specific measures have been incorporated into the Implementation Plan to enhance these capacity-building opportunities. These initiatives include (western) resource management training for interested Whitefish Lake residents, wildlands fire suppression training, commercial fishing opportunities, silvi-culture and agro-forestry opportunities, eco-tourism, outfitting and guiding, as well as cooperatively seeking out and securing business contracts and joint-ventures (i.e., road gravelling and pipeline maintenance) with industry.

Throughout the development of the Implementation Plan a number of concerns had been expressed by Whitefish Lake residents regarding the perceived health and sustainability of the local environment. These concerns have formed the basis of a preliminary list of discussion items to be

addressed by the Implementation Committee and local Working Groups. Arising directly from Committee review specific management objectives have been implemented in order to address community concerns, these include: the reclamation of abandoned industrial sites, environmental health research, and traditional/contemporary land use research.

### **Reclamation of Industrial Activity**

Over the past three decades, industrial land disturbance activities such as exploration, pipeline construction, road access, seismic work and sand and gravel extraction have resulted in ecologically unbalanced and aesthetically unappealing areas in the Whitefish Lake territory. Under the 1973 Land Surface Conservation and Reclamation Act,<sup>7</sup> these areas are to be returned to a condition which will allow for "productive" use. However, owing to provincial regulatory limitations (i.e., limited funds and man-power to enforce provincial regulations) these abandoned industrial areas are often left unreclaimed, leaving the landscape scarred by past industrial activities.

Through the cooperative management agreement, Whitefish Lake is establishing a process that facilitates local involvement in the reclamation of these industrial areas. By working directly with the Canadian Forest Service, Alberta Lands and Forests and industry, Whitefish Lake plans to ensure that disturbed areas located within their traditional territory are reclaimed in a manner that incorporates the interests of the WFLFN, be it wildlife habitat recovery, watershed benefits or recreational opportunities.

As no two disturbance areas are the same, government, industry and the WFLFN will work cooperatively on a site-by-site basis to determine the most appropriate reclamation approach. This direct involvement also allows Whitefish Lake to be involved in the actual reclaiming process, thereby providing an economic benefit to local contractors while facilitating a transfer of skills that can be applied to other reclamation projects outside the Whitefish Lake territory.

### **Environmental Health Research**

There is a growing concern among the Whitefish Lake residents regarding the impact of industrial development on the health of local wildlife and community residents (e.g., industrial residues, roadside/right-of-way herbicide spraying). In response, environmental health research is being conducted in cooperation with the Canadian Circumpolar Institute at the University of Alberta to identify specific areas of concern, including the perceived contamination of country foods, the identification of specific contaminants and the resulting effects on environmental health (human/non-human), and the documentation of local perceptions regarding the functioning ecosystem in relation to temporal and spatial change. Through

the cooperative management process a vehicle for dialogue has been established that enables the concerns of community residents to be expressed in a forum that has the means and authority to enact change in contested industrial practices.

### Land Use Research

It has been recognized by both the WFLFN and the provincial government that in order to make informed land management decisions a thorough understanding of community land and resource use patterns and needs is required. Therefore, through the cooperative management process, the WFLFN has undertaken land use research that documents the cultural landscape values of Whitefish Lake residents and has integrated those values with the economic interests of resource developers operating in the area; thus the identification of both market and non-market values has been initiated. The ultimate purpose of this research is not to restrict future land and resource use *per se*, nor is it a form of cultural triage, but rather it is to be used as a guide for sound land use initiatives that serve to preserve and protect the cultural values of the WFLFN while providing an information base necessary for making informed land management decisions.

In cooperation with Alberta Community Development (Cultural Facilities and Historic Resources Division), Alberta Lands and Forests and the Canadian Circumpolar Institute the cultural values of the WFLFN, which include grave sites, sacred sites, historic sites and archaeological sites are being recorded and placed under Protective Notations through the Historical Resources Act, thereby ensuring the preservation and protection of these areas from future development.<sup>8</sup> To date a total of 40 individual burial sites have been documented and registered that were previously at risk from unknowing development. In most cases these sites are places that individuals or families had once occupied. While some of the graves have visible markings, such as headstones, wooden crosses, or fenced areas, many of these areas are marked only in the memories of Whitefish Lake Elders, making the documentation and protection of these sites even more important.

Local knowledge regarding fish and wildlife habitat is also being used to safeguard specific locales. By working with the Alberta Department of Fish and Wildlife, areas such as medicinal plant locations, berry locations, mineral licks, waterfowl nesting and staging areas, and other critical wildlife areas have been recorded and are being placed under Protective or Consultative Notations, again serving to safeguard these areas from future development. When development plans are slated for these specific areas Whitefish Lake representatives, industry representatives and government

personnel review the plans, make recommendations and then decide how best to proceed in a cooperative manner.

An additional objective of Whitefish Lake has been the recording of community held place-names, or toponyms of the local landscape. Seen as being integral to sound management, Whitefish Lake has recognized the importance of establishing common terms of reference for physical features of the landscape. Although the recording of named places, together with their spatial and epistemological correlates, have long been the subject of anthropological inquiry, the recording and use of local place-names has received no regard from government/industry land managers operating within the traditional territory of the Whitefish Lake Cree. In addition, the provincial maps generally used by industry and government planners refer to landscape feature by names that have no relevance to local residents and are sometimes represented by only a number and a legal description of its location. However, owing to the significance of "place" to the WFLFN, the establishment of common toponyms is an attempt to illustrate the relationship local residents have with the surrounding landscape.

The above research initiatives are being technically supported through the development of an automated land management system that will enable Whitefish Lake to incorporate industrial land management data with their own traditional land and resource use information. Through on-going land use research, the WFLFN is developing the capacity to convert local land use knowledge into a GIS computer based system (ArcView) which can visually display, edit and analyze geographically referenced material. This system is enabling the WFLFN to overlay industrial land management plans with local land and resource use information in order to collectively identify and then protect landscape values prior to the occurrence of any industrial activity.

## Discussion

The ecological approach chosen in this research emphasizes adaptive behavior that evolves in response to uncertainty and increased competition over the use of, and access to, resources. Ostrom (1990), and others (e.g., Berkes and Folke, 1994; Hanna *et al.*, 1996; Holling *et al.*, 1998), have referred to this adaptive behavior as a society's cultural capital, which refers to factors that provide human societies with the means to adapt to the natural environment as well as to actively modify it. Consistent with the definition employed by Honigman (1983:150), adaptive behavior is a process whereby an individual or group acts to seize opportunities and resources available in both the social and physical environments. It is the problem solving mechanisms in human behavior that facilitate a dynamic

approach to environmental interaction. The term adaptive capital has also been used to describe this capacity, but as Berkes and Folke (1994) have noted, the use of adaptive capital often fails to describe adequately a group's potential to not only adapt to, but also actively modify its socio-natural setting.

It is important to note that the process of adaptation possesses a certain level of contradiction in relation to collective and individual behavior. That is, what may be adaptive for the WFLFN may be maladaptive for competing interests (i.e., government, industry); and conversely, what may be adaptive for competing interests may prove maladaptive to the WFLFN and/or the environment in which they occupy. Further, an adaptive capacity does not guarantee success. Rather, adaptation represents a behavioral stage that can be evaluated as being ultimately successful or unsuccessful in both the long and short term. If cooperative management is perceived by Whitefish Lake as being unsuccessful a new process may be initiated bringing alternative strategies into play (Honigman, 1983). If, however, cooperative management is perceived as a successful strategy a period of stability may occur. This "success" may then promote the adoption of similar strategies (institutions) among other First Nations who perceive it to be to their own advantage.

Ostrom (1990) has shown that in highly competitive environments, such as the one presented here, groups who fail to incorporate strategies that may enhance their net standing will ultimately lose out to those who are successful in adopting better rules, strategies, and institutions. Thus individuals caught in social dilemmas are far more likely to innovate and try to change the structure of existing institutions in order to improve outcomes, thus far more accepting of strategies promoting change (Ostrom, 1998). North (1990:81) has noted similarly that a group that permits the maximum generation of adaptive strategies will most likely be able to solve problems through time by providing incentives that encourage the development of decentralized decision-making institutions that explore alternative ways of problem solving.

It has been suggested (e.g., Caulfield, 1997), however, that co-management arrangements that fail to establish a broad framework for political and economic rights risk the creation of incipient forms of social differentiation within Aboriginal communities. It has further been warned that the adoption of co-management institutions may actually hasten the acculturation of Aboriginal peoples through a process of institutional cooptation (e.g., Stevenson, 1997). While it is true that involvement in cooperative management arrangements may further challenge Aboriginal communities already coping with socioeconomic change, concerns regarding the cultural viability of Aboriginal communities involved in institutional management seem to

presuppose a static perception of Aboriginal culture. That is, Aboriginal peoples have been adapting to socio-economic change for centuries. Rather than being locked into a static cultural continuum, Aboriginal peoples, as they exist today, have exhibited a cultural dynamism that has enabled them to maintain a distinct cultural identity while coping (to be sure, some more successfully than others) with continuous cultural, economic and environmental changes. It must be remembered that culture is adaptive; adaptive, in that it forms the basis of survival by allowing individuals and communities to cope, as well as influence, socio-environmental change. Therefore it is important to recognize that Aboriginal involvement in institutional resource management is a further demonstration of the cultural flexibility that has long enabled Aboriginal peoples to adapt to external pressures and competing demands for lands and resources.

Thus Whitefish Lake's involvement in the cooperative resource management process is testimony to the cultural flexibility that has enabled them to maintain their cultural integrity while incorporating the most strategic cultural components from competing populations. This adaptive efficiency has therefore made possible the maintenance of traditional values while integrating new knowledge and strategies (i.e., institutions) that together, have enhanced ecological resilience and their own cultural survival. Thus by borrowing from multiple cultural traditions, Whitefish Lake has developed a richer cultural capital and a wider range of adaptive options to call upon when dealing with competing interests (Begossi, 1998:148).

## **Conclusion**

While still in its infancy the success of the Whitefish Lake Cooperative Management Agreement can be attributed to several factors. First, Whitefish Lake entered into the cooperative management process recognizing that owing to the prevailing political constraints that continue to govern their relationship with off-Reserve lands and resources (i.e., Treaty arrangements), gaining exclusive regulatory authority over their traditionally used territory was not a realistic objective. Recognizing this current political reality, Whitefish Lake has maintained well-defined objectives that, above all, promote greater institutional involvement in resource management decisions. Their initial and primary objective has not been the exclusion of competing interests but rather in establishing a process in which issues can be mutually resolved and recommendations can be made regarding land use planning that takes into account the concerns and aspirations of Whitefish Lake residents. Second, because Whitefish Lake has been to a large extent excluded from education, training, and economic opportunities, developing skills and gaining access to capacity-building opportunities is seen as fundamental in assuring a more equitable role in the cooperative

management process in the future. Because of this, Whitefish Lake has maintained a long term vision of institutional development that recognizes that success will depend largely on their own self-empowerment. In this way, issues that most directly affect Whitefish Lake residents can be decided and acted upon locally thereby contributing to their own self-defined development.

Thus by demonstrating a cognitive capacity to visualize change, the WFLFN has adapted to its evolving socio-natural environment through the conception and formation of a new institution that promotes efficiency, equity and desired outcomes for the Whitefish Lake community. The Whitefish Lake Cooperative Management Agreement therefore represents a strategy promoting social reform which has provided an alternative basis in which future decisions are made regarding the allocation, distribution and conservation of resources, thereby establishing an institutional framework that has the potential to redefine the social relationships that have evolved within this shared geographical landscape.

While the Whitefish Lake Agreement is proving to have a direct impact on the way in which Whitefish Lake's traditionally used lands and resources are being managed, the implementation of this Agreement may prove ultimately to have an even greater effect on the way in which Alberta's lands and resources are to be managed in the future. That is, because there remains twelve treaty land entitlement claims yet to be settled with Alberta First Nations, the implementation of the Whitefish Lake Agreement will no doubt influence the settlement of these claims by becoming a familiar, and tested construct, in which other First Nations can follow. Thus by adopting similar strategies based upon informed decision, as well as the experiences gained by Whitefish Lake and other First Nations who are involved in similar situations, Aboriginal communities are recognizing the strategic value in establishing interdependent relationships with government and industry as a means of enacting fundamental change in the institutions most responsible for the management of their traditionally used land and resources. Thus by seeking out, and entering into cooperative management arrangements, Aboriginal communities are effectively influencing the behavioral patterns of government and industry so as to allow for institutional change to occur. This in turn has allowed for the integration of local value systems with new knowledge, skills and capacity-building opportunities that together, can enhance ecological resilience as well as their own cultural sustainability; thereby enabling Aboriginal communities to not only cope with socio-environmental change, but to initiate change as well.

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### Notes

1. PAA 281 / 149, Holmes to Bishop Young, 3 June 1899.
2. NAC RG10 Vol. 3484 file 75236-1, McKenna to Superintendent General of Indian Affairs, 17 April 1899.
3. Speech made by Commissioner Ross (in Leonard, 1995:24).
4. Speech read by Father Lacombe (in Leonard, 1995:24).
5. The Supreme Court of Canada's decision in *Delgamuukw* (December 11, 1997) provided the first comprehensive definition of Aboriginal title. The court affirmed that Aboriginal title is first, a right of exclusive use and occupation of that land that allows the Aboriginal group to utilize that land for a variety of reasons not limited to traditional activities; second, the right to choose to what purposes the land can be put; and third, that lands held pursuant to Aboriginal title have an inescapable economic component.
6. The traditional territory of the WFLFN is provincially managed as three distinct Wildlife Management Units (WMU 544, 542, 520).
7. The provincial Land Surface Conservation and Reclamation Act was enacted in 1973. The act is now being revised and will be integrated into the Alberta Environmental Protection and Enhancement Act.
8. Protective Notations are legal instruments used by the provincial government to protect and/or buffer geographical sites of paleontological, archaeological, prehistoric, historic, natural, scientific, or aesthetic significance.

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