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Co-operative Resource Management as an Adaptive Strategy for Aboriginal Communities

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Abstract

Examples from across Canada have shown that 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 co-operative 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. These co-operative arrangements represent adaptive strategies employed by aboriginal communities to enact fundamental change in the institutions that most directly influence their access to traditionally used land and resources. The Whitefish Lake Co-operative Management Agreement, signed between the Whitefish Lake First Nation and the Alberta provincial government, is such an institution and serves as an ethnographic example throughout this paper.

Introduction

Over the last three decades the traditionally used territory of the Whitefish Lake First Nation (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 the industrial and regulatory effect, 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 Co-operative Management Agreement, the reordering of existing social relationships has provided an institutional space to articulate local 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 populations. Used in this context, the Whitefish Lake Co-operative 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 includes achieving a measure of influence over traditionally used lands and resources.

Adaptation as a Term of Reference

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 facilitates a dynamic approach to environmental interaction.

As a subset of cultural capital, Hanna and Jentoff (1996: 41) have included institutional capital to represent the stock of rules and underlying organizational skills that coordinate a group's use and access to natural resources. Used in this manner, institutional capital represents the organizational means by which a society can effectively modify its evolving socio-natural environment. 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 not only to adapt to, but also actively modify its socio-natural setting.

It is important to note, however, 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 perceived as being unsuccessful a new process may be initiated bringing alternative strategies into play (Honigman 1983: 150). If, however, adaptation is perceived as successful a period of stability may occur thereby promoting the adoption of similar strategies (i.e., institutions) among others who perceive it to be to their own advantage and interest.

Given the uncertainty associated with any change, groups/individuals have proven far less likely to adopt unfamiliar strategies than they are to adopt strategies used by others in similar circumstances that are known to have been successful (e.g., Young 1982; Ostrom 1990). That is, because existing institutions are familiar constructs the formation of new arrangements require individuals to adopt alternative behavior patterns and to accept (initially) unknown consequences (Young 1982: 94). Thus the alteration of a groups behavioral pattern generally requires a collective decision and a pre-conceived idea of the potential outcome before it is incorporated into a group's cultural pattern (Bennett 1996: 49). Adaptation is therefore viewed as a process involving informed decisions based upon one's previous experiences, as well as the experiences of others, when making judgments about uncertain outcomes.

Ostrom (1990) has shown, however, that in highly competitive environments, groups or individuals 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) similarly notes 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.

The Ecological Niche

> Every society must adjust to the presence and activities of neighboring peoples just as it must adjust to variations in local resources....Competition for resources will [therefore] arise where those resources have been given a high intrinsic value and are distributed throughout a clearly bounded area (Bates 1998: 33).

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 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 within the delimited environment. This ecological interdependence takes several different forms for which Barth constructs a rough typology. According to Barth (1969: 19) where two or more ethnic groups are in contact, their adaptations may include: 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 fact in at least partial competition within the same niche. It is Barth's contention that this type of relationship will ultimately

result 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). Used in this context, Barth's multi-dimensional concept of the human ecological niche renders the niche concept of great value to this research and to the study of human ecology in general.

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 directly competing 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).

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.

The Whitefish Lake First Nation

The community of Whitefish Lake is located on the west and north shores of Utikuma Lake in north central Alberta (IR. 155, 155A, 155B). Located north of the Saskatchewan River, the WFLFN inhabits a predominantly boreal forest environment with transition zones south to the prairies and west to the Rocky Mountains. The physical landscape can be characterized as a gently undulating plain consisting of a number of upland areas dissected by two primary river drainages - Sipihk 'The Big River' (Utikuma River) and Atakasipik 'Mink Creek'. The local environment is comprised predominately of heavy forest cover of white and black spruce but including other conifers such as balsam and jack pine; deciduous trees include white birch and trembling aspen. The region is further characterized by low rolling hills and vast numbers of lakes, rivers, and streams.

Despite the establishment of the Whitefish Lake reserves in 1908, Whitefish Lake families were, for the most part, able to maintain a traditional, although modified, land-based lifestyle. Depending on resource availability/variability, band members distributed themselves accordingly, whether in response to long term resource changes or temporary resource fluctuations. However, in the post-war period of the 1950s local land use

patterns were significantly altered. Two profound changes took place in this period. The first was that the value of fur dropped in the 1940s and remained depressed until the 1970s. The loss of wage earning opportunities limited the subsistence harvesters' means to purchase manufactured items such as hardware, ammunition, twine for nets, and food staples such as flour, sugar and baking powder. This cash-poor period forced many Whitefish Lake families to begin settling on reserve lands. The second was the increased global demand for renewable and non-renewable natural resources. With the encroachment of industrial development into the traditional territory of the WFLFN sedentarization of the Whitefish Lake Cree was encouraged by both the provincial and federal governments. However, with the coerced sedentarization of the Whitefish Lake Cree came a system of paternalistic reserve administration under the terms of the Indian Act which extinguished any aboriginal 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 of access to resources off-reserve was never considered essential to the economic development of aboriginal communities. Consequently, Whitefish Lake had been given no authority on the basis of aboriginal title nor on the basis of customary use to regulate access to resources within their traditional territory. As a result, the lands that have been placed under the control of the WFLFN through the reserve system have fallen well short of meeting the socio-economic needs of the Whitefish Lake people, while the resources needed to maintain the local economy that lie outside of the reserve area are continually being threatened by external interests in the form of resource exploitation.

While a treaty of land entitlement claim (1990) has provided the WFLFN with title to an additional land base (5,830 acres), lands that have fallen outside of the land entitlement, lands which - from a community perspective - represent their traditionally used and occupied territory, are now legally and politically recognized as 'unoccupied' provincial crown lands. Hrenchuk (1993: 71) has defined unoccupied crown lands as being lands in which no private individual or firm has acquired rights of property or title. To the Crown, as well as to the general Canadian populace, unoccupied crown lands take on an associative meaning that these lands are to a large extent unused; thus crown lands are considered common property of the state.

Oil/Gas Development

Whitefish Lake residents recalled their first encounters with oil workers in the mid-1950s. Arriving in "large trucks", workers began clearing exploratory seismic lines on the north shore of Utikuma Lake (lines that would soon zigzag the entire Whitefish Lake territory). Because road access to the Whitefish Lake territory was seasonal, and to a large extent quite variable, barges were used to transport both men and machinery across Utikuma Lake to reach it's north shore. Because of the difficulty in 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.

By the mid-1960s, exploration in the Whitefish Lake territory took a giant leap forward. 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 north and north-east portions of the Whitefish Lake territory.

Since their first encounters with oil workers in the 1950s, Whitefish Lake residents have witnessed their landscape transformed to meet the needs of external interests. Within the traditional territory of the WFLFN now exist approximately 875 petroleum wells, 127 petroleum depots and a supporting infrastructure of primary and secondary access roads, pipelines, electrical powerlines and seismic lines. To compound the effects of this developing infrastructure, "No Trespassing" signs have been posted, warning local residents of these private industrial areas. Seeing their lands divided into leases, and allocated to resource developers, it has become increasingly apparent to the residents of Whitefish Lake that the significance of their cultural landscape has gone unrecognized by the industrial developers operating within the homeland of the WFLFN. More importantly, it is clear that this has gone unrecognized by the provincial government.

Resource Competition

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 the increased accessibility Whitefish Lake residents have experienced increased competition from non-aboriginal hunters over declining populations of 'game' species (i.e., moose, mule and whitetail deer, and black bear).

While many of the non-aboriginal sportsmen travel from the nearby communities of Slave Lake and High Prairie, a growing number are being attracted from Edmonton, Red Deer and Calgary. Further, non-aboriginal outfitters are attracting a growing number of

U.S., European and Asian sportsman who have further "saturated the backyard" of the WFLFN with additional hunting pressure (NMMPPR 1998).

WMU[1]	544	542	520	Total
Black Bear	60	129	90	279
Moose	22	58	60	140
Mule Deer	3	0	10	13
White-tailed Deer	10	4	7	21

Table 1. Outfitter-Guide Allocations (1998-2003)
(Heckbert 1999)

While harvest figures for guides and outfitters can be tabulated it has proven difficult to ascertain accurate figures for a 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 concerns expressed by aboriginal and sport hunters regarding 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.

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

WMU 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

Table 2. Sport Harvest Data
(Heckbert 1999)

Timber Development

Timber extraction in the Whitefish Lake area first began in 1970 with the first Timber License being awarded to a local contractor. However, it was not until 1988 that serious interest was given to the area as a primary source of both deciduous and conifer timber. With the encouragement of the Alberta provincial government Yuen Fung Yoo (YFY) Paper Company from Taiwan proposed the first pulp/paper complex to be located in the community of High Prairie (approximately 90 kilometers southwest of Whitefish Lake). YFY's proposal was well received by provincial land managers enabling YFY to issue debentures in American markets to finance the facility. However, owing to a number of internal reasons, YFY's proposal failed to materialize forcing the province to "advertise" in an attempt to attract another forest products industry.

Tolko Industries Ltd. based in Vernon, British Columbia was the successful bidder for the High Prairie Timber Development Area (TDA) and was subsequently awarded the deciduous rights to the area in 1994 (Tolko Industries Ltd. - Preliminary Man. Plan. 1997: 2-1). Construction for the Tolko pulp/paper mill began in 1994 and was completed in 1995. Following the mill's completion and successful negotiations with the province, Tolko, in 1997 was awarded a Forest Management Agreement (FMA) covering most of

the TDA lands, including lands that represent the traditional territory of the Whitefish Lake First Nation.

Gift Lake Metis Settlement

In the context of aboriginal land conflicts, the Alberta Metis Settlements represent an anomaly in Alberta. Only in Alberta have the Metis succeeded in establishing their own communal land base. Through the Metis Betterment Act of 1938/40 more than 500,000 hectares of communal land have been provided along with hunting and fishing rights, socio-economic benefits, and health programs for Metis residents (Notzke 1994:186). Under this Act, twelve settlements were established (of which eight remain) throughout Alberta. The Gift Lake Metis Settlement represents one of the those land bases.

The Gift Lake Metis Settlement is located directly west of Utikuma Lake, bounded by Peavine Metis Settlement to the west and the Whitefish Lake Reserve (R. 155) to the east. The land base that was established for Gift Lake residents comprises a 83,916 hectare (207,273 acres) area. This land base is approximately 839 km^2 (324 mi^2) and represents the second largest Metis Settlement in Alberta (McCully and Seaton 1982: 16).

Despite First Nation treaty rights of "hunting, trapping, and fishing for game and fish for food at all seasons of the year on all unoccupied crown lands and any other lands to which the said Indians may have a right of access", Metis settlement lands have been classified as private lands administered by the province, thereby removing them from First Nation access. The establishment of the Gift Lake Settlement subsequently removed 839 km^2 of land and resources from the use of Whitefish Lake residents despite its representing a significant portion of their traditionally used and occupied territory.

Co-operative Management

Recognizing the limitations of the provincial land-tenure system, as well as the 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 opportunity finally presented itself. At this time it was recognized that when the Whitefish Lake reserve was 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 co-operative approaches to land, wildlife, and fisheries management in the area surrounding the Whitefish Lake reserve (2,700 sq. km.). Through these negotiations, WFLFN was successful in establishing the only First Nation - Province of Alberta Co-operative Management Agreement to date, as recognized under the terms of a treaty land entitlement claim (1994). This agreement is in the form of a Memorandum of Understanding (MOU) signed between Alberta Environmental Protection, Alberta Aboriginal Affairs, and the WFLFN.

The vehicle used to fulfill 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 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 Co-operative Management Agreement were finalized and implementation began in January of 1998.

Administering the implementation and operation of the Agreement is the Co-operative 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 that may be required to achieve agreed upon objectives. Further, the Committee is responsible for the long-range management planning of fish, wildlife, and timber resources and to co-operatively develop future forest management plans.

Specific measures being addressed by the Committee include, the reclamation of abandoned industrial sites, trappers compensation issues, changes in the provincial permit system for industrial property damage, traditional land use and occupancy research, environmental health research, and the integration of local ecological knowledge into provincial wildlife research. Additionally, because education, training and economic development opportunities are seen by both Whitefish Lake and the province as being central to the co-operative management process, specific measure have been incorporated into the Implementation Plan as to enhance these capacity-building opportunities. These initiatives include (western) resource management training, wildlands fire training, commercial fishing opportunities, silvi-culture and agro-forestry opportunities, eco-tourism, outfitting and guiding, as well as co-operatively seeking out and securing business contracts and joint-ventures (i.e., road graveling and pipeline maintenance) with industry.

Cultural Viability

While still in its infancy the success of the Whitefish Lake Co-operative Management Agreement can be attributed to several factors. First, the WFLFN entered into the co-operative 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 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 in 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 assuming a more equitable role in the co-operative 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 social development.

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 demise of aboriginal cultures as they wish to be maintained (e.g., Stevenson 1997). While it is true that involvement in co-operative management arrangements may further challenge aboriginal communities already coping with socio-economic 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. George et al (1995: 71) maintain that the Cree have adapted successfully to European institutions without fundamental internal conflicts from the beginnings of contact, whether in regards to bargaining frameworks established during the fur trade or participation in the state political system. Hedican (1995: 152-153) similarly notes that the Cree's ability to adapt to changing socio-ecological conditions brought about by the arrival of European fur-traders is not dissimilar to the challenges associated with the signing of the James Bay Agreement and subsequent hydroelectric development in that they both represent new challenges that the Cree have had to face in order to survive.

Thus the ability of Whitefish Lake to deal with the arrival of fur traders, missionaries, government agents, industrial developers as well as aboriginal neighbors demonstrates an ability not only to adapt but to flourish in response to external pressures. It must be remembered that culture represents an adaptive process that enables individuals/communities to cope with socio-environmental change. Therefore the concerns that co-operative management arrangement may threaten the cultural integrity of aboriginal communities becomes particularly invalid, and from an anthropological point of view such change is considered quite 'normal' (Hedican 1995: 153).

Conclusion

> Human behavior is shaped by uncertainty (Hanna and Jentoft 1996: 49).
>
> The entire purpose of social institutions is built around the reduction of uncertainty (Ostrom 1990: 39).

By demonstrating a cognitive capacity to visualize change, the WFLFN has adapted to the 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. Used in this context, the Whitefish Lake Co-operative Management Agreement represents a strategy promoting social reform which has provided a 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 will have a direct impact in the way in which Whitefish Lake's traditionally used lands and resource are management, the implementation of the Whitefish Lake Agreement may prove to have an even greater effect on the way in which Alberta's lands and resources are to be managed. 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 negotiation process 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 others who are involved in similar situations, aboriginal communities are recognizing the strategic value in establishing interdependent relationship with government and industry as a means of reversing policies of marginalization and even their own displacement (e.g., Barth 1969). By employing adaptive strategies that promote co-operative 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 allows for the integration of local value systems with new knowledge, skills and capacity-building

strategies that together, can enhance ecological resilience as well as their own cultural sustainability. Thus enabling aboriginal communities to not only cope with socio-environmental change, but to initiate change as well.

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