



**INDICATORS OF CULTURAL CHANGE
(1960 TO 2009): A FRAMEWORK
FOR SELECTING INDICATORS
BASED ON CULTURAL VALUES
IN FORT MCKAY**

Submitted to:

INDUSTRIAL RELATIONS CORPORATION

FORT MCKAY

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Appendix A: DRAFT Literature Review and Value Matrix for Fort McKay Prepared for the IRC. September 19, 2008

Appendix B: Background information on the Theoretical Approach

Appendix C: Summary Documents – Industry Stressors and “Activities” carried out by Fort McKay Community Members (1960’s vs. 2008)

Appendix D: Glossary

1 Introduction

The Fort McKay Community Specific Assessment is being carried out to determine the significance of development impacts upon the people of Fort McKay as *determined by the people of Fort McKay*. The detailed results of the Fort McKay Community Specific Assessment will be presented in two separate volumes; an environmental assessment, and a cultural heritage assessment.

The objective of the Fort McKay Community Cultural Heritage Assessment (CHA) is to provide an assessment of the cumulative impacts that industrial development has had on the cultural heritage of Fort McKay. The CHA will examine changes from a pre-development timeframe (1964) to present (2009). Information captured in the CHA will provide a baseline from which the community can determine future project-specific impacts on Fort McKay's cultural heritage.

In September 2008, the Fort McKay IRC retained the Human Environment Group (HEG) to carry out specific tasks to support the Cultural Heritage Assessment. These tasks were:

- To develop a list of Fort McKay cultural values;
- To discuss industry stressors affecting Fort McKay culture;
- To develop a list of cultural indicators and benchmarks; and
- To facilitate community validation for each of the above tasks.

This report describes the process used to complete the tasks listed above. It also provides some background information related to Fort McKay culture and the link between Aboriginal culture and community wellness. Section 4 summarizes the key findings related to cultural values and industry stressors influencing these values. Section 6 recommends indicators that could be used to assess cultural impacts linked to industrial development.

2 Background

“We are people of the land – hunters and gatherers. Without the land we feel lost. Without the land we are nothing.”

(Fort McKay Workshop September 2008)

The traditional economy and way of life for the people of Fort McKay has been recorded in numerous community documents (FMTA 1983, FMFN 1994, Tanner et. al. 2001, Fort McKay IRC 2004), regional studies and environmental impact assessments (EIAs) (Appendix A). This traditional ‘bush’ economy was based on a seasonal cycle of hunting, trapping, fishing, and gathering and is founded on a deep respect for the land and all it contains. By living and working together on the land, kinship networks were strong and the core cultural values influencing

individual behaviour were instilled. The people of Fort McKay believe they are part of the land, which was given to them by the Creator to care for, and to safeguard the well being of all the creatures and living things it nurtures.

“You cannot separate our economy from our culture. Nor can you separate either of these from the land.”

(FMTA 1983: 18)

The traditional way of life and thus, Fort McKay culture, has been influenced by a number of significant factors throughout history. The Fort McKay document “From Where We Stand” (pages 134 to 137) provides a chronology of major events that have affected the Fort McKay way of life prior to major oil sands development: including Treaty 8 and creation of Indian Reserves as well as provincial government policy related to forest and wildlife management and industrial mineral exploration and development. Residential schools and shifts in the local political structure have also had enormous influences on Fort McKay culture (FMTA 1983, Van Dyke 1978). While acknowledging the significance of these factors, this report will focus on the influence industry has had on Fort McKay culture, and outline the cultural shifts that have occurred in the community since the 1960s.

The people of Fort McKay believe that the most significant effect on their culture has resulted from the large scale use of traditional lands for industrial development since the 1960's, the associated air and water pollution, the influx on non-Aboriginal people to the region, and the shift from a mixed economy to a predominantly wage based economy.

“We have been taken from our way of life and put into a “white” way of life. Industry didn't start it, but has made it more.”

(Fort McKay Community Workshop September 2008)

The Fort McKay Tribal Administration (currently know as the Band Administration) describes the 1960s as the “approximate time period in which year-round settlement and living patterns began to centre more permanently in Fort McKay – allowing band members to get supplies and trade, so their children could attend mandatory school, and receive family allowance payments. This period also corresponds to the introduction of permanent housing provided by the government through the Department of Indian (and Northern) Affairs,” (FMTA 1983: 35, 83). However, even with these changes the community maintained a strong tie to the land: “While the introduction of formal education and other imposed government policies brought a curtailment to some (traditional harvesting) activities, the reliance on the traditional economy and the transmittance of cultural values through the traditional life style continued very strong until the invasion of Fort McKay's traditional lands by major resource development projects,” (FMTA 1983: 35 and 83).

“Until the 1960's, Fort McKay's communication with the south was by winter road in the cold winter months and by the Athabasca River during the summer months. In 1963 came the Great Canadian Oil Sands Company plant and thousands of new people flocked to Fort McMurray. Then came the permanent road linking Fort McKay to Fort McMurray and points south. Then came the loss of berry grounds and trap lines and depletion of fish and resources and wage jobs, and more cash and less time in the bush, easy access to alcohol and drugs and very little time to adjust and cope with changes and no special programs to help them cope with family and community problems, mental and physical stress,” (FMTA 1983: 35).

“When Suncor arrived here; that is when everything changed. They used to cut all the trees. They killed everything when they cleared the land. There is nothing left on my line – they killed it all. I am an old trapper; I have lived here my whole life. You can't trust the oil companies; nothing good comes out of it. When elders pass away everything will stop.”

(Fort McKay Workshop June 2009)

Today oil sands development constitutes the largest use of land for heavy industrial purposes within the Fort McKay traditional territory. Six open pit oil sand mines exist within 20 miles of Fort McKay; and more than 20 companies hold mineral leases within the territory. As Fort McKay's *Healing the Earth Strategy* (2004) describes, “oil sand projects have been approved to the north, south, east and west sides of the community. Fort McKay is literally overwhelmed trying to effectively deal with development, being surrounded by oil sands, pipelines, forestry and other industrial activities,” (Fort McKay IRC 2004).

While most societies experience continuous social change in response to an evolving economy, researchers studying the effect large scale development has on Indigenous cultures suggest that where such change is rapid and largely out of the control of those affected. This can erode the community's confidence in their ability to control its own destiny (Erikson and Vescey, 1980: 159). This has certainly been the case for Fort McKay. Since the 1960s, mine and in-situ development within Fort McKay's traditional territory has caused dramatic ecological changes. Massive tracts of land have been lost, the water in the rivers has changed and the quality and quantity of traditional food has been put into question. At the same time, the population of people living in the territory has gone from just over 1,000 people in the early 1960's, to approximately 90,000 in 2008 – including work camps and other communities in the Regional Municipality of Wood Buffalo (<http://www.altapop.ca/specialized.htm> and RMWB 2007). These changes have had significant negative impacts on the traditional economy, societal structure and thus the culture of the Fort McKay community.

As a result of the rapid environmental and societal changes caused by industrial development, Fort McKay has experienced considerable cultural stress. 'Cultural Stress' is a term used to describe a condition that results from the erosion of integrity of cultural systems, which manifests as psychological, physical, emotional, and/or spiritual health disorders. Cultural stress is described in the

Report of the Royal Commission on Aboriginal Peoples – Volume 3: Gathering Strength (2006) as:

“A factor negatively affecting the well-being of First Nations people and communities throughout Canada. The report (2006: 587) states – In our special report on suicide, we cited cultural stress as a major factor in the vulnerability of Aboriginal young people to self-destructive behaviour... In cultures under stress, the smooth operation of society and the sense life makes to its members can be seriously impaired. Culturally transmitted norms that once provided meaning and guided individual behaviour become ineffectual as rules for living or sustaining relationships, and the rules themselves fall into disrepute. People lose confidence in what they know and in their own value as human beings. They may feel abandoned and bewildered and unsure about whether their lives have any real meaning or purpose.”

Fort McKay community members explained there is a sentiment of pressure from industrial activities that affect their health, beliefs and way of life:

“Mentally, we are always thinking of what has happened to us. You are always worried. This is stress.”

“Everything is stress. We are apprehensive about eating berries. Stress is driving to town-going through Syncrude and seeing the land that has been taken. All our rivers are polluted. Now we need to go to other places but we are driven from our land.”

“Our Spirit has been taken.”

(Fort McKay Workshop September 2008)

The identity of the Fort McKay people is rooted in time and place to the land. “Since time immemorial we have roamed this land, lived from this land, and been part of this land. To separate us from this land would be to split our very identity in two,” (FMTA 1983: 1). It is within this context that this report considers the use of indicators to describe the affect that oil sands development has had on Fort McKay culture.

3 Cultural Assessment Approach

This section of the report deals with the theoretical and methodological approaches used in the study. It explains the process used to assess cultural change in Fort McKay and describes the basic concepts in which the study is grounded.

3.1 Concept of Culture

Culture affects the way in which people understand themselves, their land, their community and their relationship with the spiritual world. In this study culture is used in its anthropological interpretation, as defined by Almond and Powell

(1966: 23): "The set of attributes, beliefs, and values current in an entire population which gives order and meaning to a society and provides the underlying assumptions and rules that govern people's social behaviour". For the people in Fort McKay the definition above fits with their view of culture, although they prefer to more simply define culture as a *way of life*."

Culture: A way of life. Culture affects the way in which people understand themselves, their land, their community and their spirituality. Culture gives order and meaning to a society and provides the underlying assumptions and rules that govern people's social behaviour.

3.2 Cultural Components

Figure 1: Cultural Components (below) are used to illustrate the primary components of culture; these components are used to describe the ways in which people experience culture (adapted from NZMCH, 2006). The four components are:

- **Self** (individual identity, awareness and relationship with one's own self),
- **Community** (group awareness and relationships with the community as a social unit including parents, elders, extended family, peers, neighbours, leadership etc.),
- **Land** (awareness and relationship with the physical environment, including water, animals, plants air and everything else on the "land"), and;
- **Creator** (awareness and spiritual relationship with the Creator and ancestors).



Figure 1: Cultural Components

Appendix B: Theoretical Approach describes these cultural components in greater detail.

3.3 Theoretical Approach

The theoretical approach providing the foundation for the CHA suggests that it is the modification of the physical and social environment by an external agent (industry) that forces the community to modify the way traditional activities are carried out. This affects traditional values and impacts the meanings and cultural tools used and associated with those activities. As meanings are modified, community actions towards different “things” (for example, animals, tools, family members, language etc.) are modified. This creates a cycle that can result in rapid cultural change and the potential loss of cultural heritage. The theoretical framework is based on principles of symbolic interaction (Blumer, 1969), further described in Appendix B.

Values were identified as a relevant element at the core of culture that could be explored and assessed through the use of indicators. Values are the principles or standards that guide human actions and behaviour. They determine which “things”, conditions or characteristics that members of the society consider important. Although beliefs and other cultural attributes are considered, this study employs the *social constructivist perspective*, which suggests that values are created and modified through symbolic interaction based on individual and societal views. In turn, these values help identify what should be judged as good/right or bad/wrong.

Cultural Values: Values are principles or standards that guide actions and behaviour. Cultural Values help communities identify what should be judged as good/right or bad/wrong.

Another key theoretical assumption applied in this study is the concept that collective identity and individual identity are intrinsically linked within a political economic system of cultural process and history (e.g., Bourdieu 1977). These forms of identity have the potential to be adversely affected by things that uncouple their linkage to the past, and simultaneously their point for projection into the future.

“Persistent peoples require access to shared procedures and practices (cultural tools, if you will) that allows them to imagine and sustain shared history and common future ... anything that works to cost such groups their meaningful ties to a common past, or to rob them of responsible commitments to a shared future is likely to prove to be corrosive to their collective well-being.”

(Taylor 1984)

The people of Fort McKay believe industrial development processes are limiting the ability for Fort McKay community members to carry out cultural activities within their traditional territory – and this is significantly affecting the collective and individual identity of the Fort McKay people.

Activities conducted by Fort McKay members were identified and used as tangible elements that reflect cultural values.

Activities: The things we do. Examples of activities are: hunting, going to school, fishing, picking berries, working, visiting, dancing, praying etc.

3.4 Methodological Approach

The methodology used in this study is based on what Denzin and Lincoln (1994) consider the third moment of qualitative research that requires participatory methods to make sense of local situations from the perspective of those who share the situation. Research methods included:

- Literature review of published and internal community documents to set the context and inform the process;
- Two two-day community workshops conducted in Fort McKay with an average of 20 participants including elders, youth, women and men, (September 23 - 24, 2008 and February 23 - 24, 2009);
- A two-day focus group in Fort McKay with the participation of 8 community members (January 14 -15, 2009),
- One-day workshop in Fort McKay with 7 elders (June 02, 2009), and
- Data analysis.

A core group of community members participated in all four events giving continuity to the process and the participants a deeper understanding of the issues. The iterative process of data collection, analysis and community feedback/validation provided insight into the meaning of concepts and experiences, in a “recursive” and circular process (Stewart and Valentine, 1990).

This section outlines the methods used to identify **indicators** that may validly be used to assess cultural impacts caused by industrial development between the 1960s, when the first oil sands industrial development started, to the present. The process included identifying Fort McKay core cultural **values**, and industry **stressors** that affect the way cultural **activities** are carried out.

Describing cultural values can be challenging in a workshop environment. To help focus discussions related to cultural values, workshop participants were encouraged to talk about a range of activities that are carried out by community members. These activities characterized the Fort McKay “way of life” in the 1960’s and in modern times. All the activities discussed during community workshops are listed in Appendix C.

The study focused on activities conducted by community members because activities reflect cultural values. As activities are modified due to technological development, environmental changes or external pressures, values also are

affected. The cultural models representing these linkages are presented in Section 3.5 below.

In September 2008, a workshop was organized for the purpose of defining cultural values. The Fort McKay IRC invited a cross section of community members representing elders, working adults, and youth from Cree, Chipewyan and Métis families.

Through facilitated discussions, participants were asked to describe the main activities they used to engage in prior to and during the 1960s and activities that they perform now. When appropriate, facilitators encouraged people to describe how these activities had changed over time.

During workshops, discussions were recorded using a digital audiotapes and hand written notes. Information and quotes from participants were transcribed and then classified in the four components of culture. A master list of “Activities” was also generated based on these discussions (Appendix C). After the workshop activities were categorized into “1960’s” activities, and those that take place today.

Figure 2 is an example of how the quotes that were recorded during the workshops were classified and linked to cultural components, activities and values. Fragments of each quote were isolated for the purpose of analysis (the linking the activity to cultural values), but were interpreted within the context of each conversation. In this figure, two related activities are identified: Hunting and Preparing (protocols). The activities are linked to values, which are associated with the different cultural components represented by orange (Self), yellow (Land), white (Community) and green (Creator) in the Cultural Model.

Figure 2: Sample Quote Classification and Linkages to Cultural components

Self	Land	Community	Creator
There is a spiritual aspect to hunting. You need to have a healthy body, you have to prepare, have to get up early... It took time and effort, but the end result was satisfaction.	There is a spiritual aspect to hunting. You need to have a healthy body, you have to prepare, have to get up early... It took time and effort, but the end result was satisfaction.		There is a spiritual aspect to hunting. You need to have a healthy body, you have to prepare, have to get up early... It took time and effort, but the end result was satisfaction.

ACTIVITY:
Hunting
Prepare (Protocols)

VALUES:
Self-Reliance
Respect
Connectedness

Following this analysis and a review of key community documents, cultural models that could be used to describe cultural change in Fort McKay were developed. The Fort McKay Cultural Model (Section 3.5) represents core cultural values and their relationship with cultural components. Values that are manifested through each activity were linked.

To identify and develop indicators that may be used to measure changes in cultural values, community members were asked variations of the following questions for a selection of key activities: “what do you need (i.e. what skills, knowledge, cultural tools) to do a good job at _____ (activity)?” and “what do you get out of doing a good job at _____ (activity)?” respectively.

Based on the answers, a subset of cultural tools – or “inputs” and “outputs” – were identified for a selection of key activities. Examples of inputs may be skills, knowledge, strength, and bravery; outputs may be health, pride, and language. The inputs and outputs described for each activity are presented in Section 4. Inputs and outputs can be used as indicators, which can be measured to describe changes in cultural values.

Inputs: Are the necessary cultural characteristics and cultural tools required to appropriately perform an activity (What you need to do a good job at the activity). Inputs are determined by values.

Outputs: Result from appropriately doing an activity (what you get of doing a good job at the activity). Outputs affect values.

3.5 Fort McKay Cultural Model

Based on community documents, regional literature, and community workshops, a Fort McKay Cultural Model was developed that linked the four Cultural Components to core community values. While recognizing that these are not the only values inherent in Fort McKay culture, these values were consistently brought up by community members in community documents and in meetings when describing the way industrial development has affected the way people relate to each other, to the land, to the Creator and how they personally understand themselves as part of the community. The model was vetted and fine tuned with a small focus group of Fort McKay community members. The focus group (representing elders, working adults and youth) spent two days reviewing the models and determining appropriate focus for the remainder of the assessment.

Cultural Components: The ways in which people experience culture. The four components are **Self** (awareness and relationship with one’s own self), **Community** (awareness and relationship with the community as a social unit), **Land** (awareness and relationship with the physical environment, including non-human others), and **Creator** (awareness and spiritual relationship with the Creator and ancestors).

Each value was grounded in one of the four “components of culture” which define the way in which people experience culture. Figure 3 portrays the relationship between values and Fort McKay culture.



Figure 3: Fort McKay Cultural Model

Each of the values is briefly explained in the table below.

Cultural component	Values - English	Values - Dene	Values - Cree	Project Definition
Self <i>The following values are rooted in this Cultural Component because they are naturally founded on the continuous development of self-knowledge</i>	Tradition	Nónisnóde,	Kayāsohei isitwawin, āniskototamowin Handing down of beliefs, opinions, customs, stories etc. from one generation to another.	Actions or activities carried out to pass knowledge, skills and attitudes from one generation to the next. According to Hobsbawm (1983), tradition involves a set of practices governed by accepted rules of symbolic nature that seek to instil certain values and norms of behaviour by repetition, which automatically implies continuity with the past.
	Self-reliance	Etdeghes ng,	Mamistotasewin Independent.	The ability to provide for yourself and your family on your own or as part of a group.
	Self-determination	Yaníst'ine bēch'anië	Ahkameyittamowin Believing in yourself.	The ability to freely decide how to live; including individual behaviour, government, and use/management of resources.
Community <i>The following values are related primarily to social interaction</i>	Cooperation	Ełts'e hildi	Nesikamatowin Helping one another.	Working together to attain common goals.
	Cohesion/Bonding		Miyo wiceeh to win Getting along.	The relationships that community members have to each other.

Cultural component	Values - English	Values - Dene	Values - Cree	Project Definition
	Caring	Etk' erailni	Nakateyimtowin Looking after, attend to.	Looking after each other - giving attention to other people's needs and supporting people to meet those needs.
Land <i>The following values are mainly related to the relationship between the culture and the natural environment. This component is particularly important for Aboriginal communities because of their deep relationship with the land.</i>	Rootedness	Etaghelant'e ninet	Tipiyawehona, kamekowesihk Belonging to; the people of the land.	Very deep feelings of attachment and belonging to the land. People are <i>part of</i> the place; the bond between some people, plants, animals, landscape and local spirits cannot be broken.
	Rhythm of Nature	T'ant'u daghana	Piyakwan kisiwepinkehk, tohtwaskiy Conducting activities seasonally.	Living and conducting activities by natural cycles – a seasonal round.
	Respect	Yëk'ëgëdli	Manatcihiwewin Show consideration for.	Recognition that everything on earth has rights and privileges that are acknowledged and valued. Nature is understood in and on its own terms (Cajete, 1994)
Creator <i>These values are related to the connection</i>	Peace	Nezo nàde	Peyatik pimatiswin Living in peace.	A life free of conflicts. It is related to harmony in nature and with the people around you, where all creatures have the right to live in tranquillity with one another and within

Cultural component	Values - English	Values - Dene	Values - Cree	Project Definition
<i>with ancestors and the spiritual world; they are concerned with something beyond the boundaries of one's own life – transcending the physical world.</i>				themselves.
	Purpose	T'at'ina	Pimātiswin, kamekosihk Aim to live and work in perfect harmony.	The meaning that actions have. It is related to the spiritual connection of humans, plants, animals and mother earth as a whole.
	Connectedness		Aniskot asewnamatowin tāpwewakeyihomowin Joined in order, connected ideas.	The spiritual connection that community members have with the Creator, their past and traditions through their ancestors, others in the community, and the land. It also refers to the understanding that each of those aspects is linked to one another and form part of a whole.

4 Findings

Findings are based on a literature review and have a strong focus on community members' opinions and perceptions gathered during meetings and community focus groups. The values associated with each activity are outlined along with community descriptions of the industrial stressors that have influenced these activities since the 1960s.

Values:

There are many values identified by community members that are important in the composition of Fort McKay culture. For the purpose of this study, the community selected a number of values that are important to the community and that have been affected or somehow modified in the last forty years, in part due to oil sand development in the region. Those selected values are outlined in section 3.5 above.

Activities:

Similarly to the process for selecting values, community members participating in the focus group meeting (January 2009) selected representative activities that have been affected by oil sand development since the 1960s. Community members feel that these influences have significantly contributed to cultural changes in Fort McKay. The activities that were identified as relevant for the purpose of the cultural heritage assessment include:

1. Hunting
2. Education
3. Berry Picking
4. Visiting
5. Raising Children
6. Work for industry
7. Work for Fort McKay

Later, the Fort McKay IRC requested that the following 2 activities be added based on their significance and key roles in Fort McKay culture:

8. Fishing
9. Trapping

While recognizing that there are many other activities that characterize the Fort McKay way of life (Appendix C), these are activities were selected because they:

- Were central to Fort McKay's life during the 1960's; prior to the most recent wave of industrial development;

- Have changed in terms of the amount of time that people spend carrying them out; and
- Are no longer carried out in the same way they were performed during the 60's as a result of oil sands development.

The following sections describe how values are reflected through each activity during the 1960s (prior to large scale oil sands industrial development) and today. The models in each of the sections illustrate the direct and indirect links between the activity and the selected values in the 1960s, and then the links between the activities and those values today (2009) as they have been affected by oil sand industry (industry) stressors (weakened, strengthened or remain relatively similar).

The relative weights of the links represent the perception of the community representatives as a means to identify indicators. In order to quantify or qualify the impacts on the links between stressors, activities and values it will be necessary to collect and analyze data on indicators selected by the community.

Stressors:

Fort McKay has experienced significant socio-cultural change since the 1960s. Some of that change is endogenous to the community; however, other changes are externally driven. Oil sands development is among the external variables that have had the greatest impact on activities associated with the Fort McKay way of life. Other externally driven changes (stressors) are related to government policies, technology and influences from mainstream society that have affected all Aboriginal groups in Canada. As explained in the Introduction (Section 10), it is hard to make a clear distinction between cultural changes driven by the different agents affecting the area including internal forces that shape culture as a natural progression of society.

However, the geographical location of Fort McKay traditional territory puts the community in an especially vulnerable position in terms of impacts from oil sands development. These impacts are a cumulative force that adds to other external stressors, accelerating and causing cultural change at a greater rate than in other Aboriginal communities.

There is evidence that resource extraction in Northern Alberta and in particular oil sands development "has removed or degraded land and resources to the extent that those resources can no longer support subsistence harvest or related uses by First Nations and Metis populations," (Parlee 2008).

This final CHA report will focus on the influence industry has had on Fort McKay culture, and will outline the cultural shifts that have occurred in the community since the 1960s. The people of Fort McKay recognize that cultural changes have been a result of a number of factors including residential schools, government policies and pressures from the mainstream society in general, but believe that it has been the large scale taking up of lands by industrial development since the

1960's, the associated air and water pollution, the large scale influx on non-Aboriginal people brought by industrial development (oil sands) to the region, and the shift from a mixed economy to a predominantly wage based economy that has had the most significant effect on their culture.

“When Suncor arrived here, that is when everything changed. They used to cut all the trees. They killed everything when they cleared the land. There is nothing left on my line – they killed it all. I am an old trapper; I have lived here my whole life. You can’t trust the oil companies, nothing good comes out of it. There is lots of things going on in the bush – we should go in the bush, not just talking about it here. When elders pass away everything will stop.”

(Fort McKay Workshop June 2009)

Main stressors identified by the community and a brief explanation of the role of the oil sands industry in causing or incrementing their pressure in the community are summarized below:

Stressor	Selected Impacts	Community Perception “industry” = oil sand development/companies	Relation to Industry
Loss of Land	Limits community member's opportunity and capacity to hunt, trap and gather: forcing them to participate in the wage economy. Loss of land around Fort McKay has limited opportunities for traditional intergenerational transfer of knowledge.	<ul style="list-style-type: none"> • Industry has changed the land. • Loss of land and reliance on the wage economy has changed the way we spend our time and who we spend our time with. • Industry has driven the animals away and changed the way they behave. 	Oil sand developments (mines, SAGDs, upgrading facilities and related infrastructure) disturb large areas, change local hydrology and create linear disturbance.
Pollution	Decreased quality of country foods and concerns over pollution have decreased motivation to consume wild meat, fish and berries; reducing time spent hunting, fishing and gathering.	<ul style="list-style-type: none"> • Industry has contaminated our food. 	Emissions and effluents from mine upgraders, mine fleets and related infrastructure cause air, water, and soil pollution resulting in direct human health effects and bioaccumulation in fish, wildlife and plants (real and perceived).

Stressor	Selected Impacts	Community Perception "industry" = oil sand development/companies	Relation to Industry
Reduced Access to Land	Reduced ability to hunt, trap and gather and fish.	<ul style="list-style-type: none"> • Industry has changed access to our traditional land. • Industry has affected the animal habitat and movement. 	Linear disturbance, gates and safety related access restrictions on mine and SAGD leases.
Wage Economy	Work schedules at the mines limit the amount of time community members can spend on the land and the duration of traditional harvesting excursions. Shift work and incentives for working overtime have changed individual's availability to be on the land and care for children in the traditional way. The desire for non-labouring jobs has increase local importance of institutionalized education.	<ul style="list-style-type: none"> • Reliance on the wage economy has changed the way we spend our time. • Time pressures related to work and school have affected the composition of hunting and berry picking parties. • Wages from industry jobs affect the way we hunt. • Industry has affected the cost of living and educational requirements for employment. • Industry and government have required Fort McKay's government services to grow. • Industry has affected the cost of living. • Loss of land and reliance on the wage economy has changed the way we spend our time and who we spend our time with. 	Loss of land, access and pollution has diminished the opportunity and capacity of the community to live off the land forcing people to take positions in the wage economy; in most cases, with an oil sands company. The majority of positions that McKay community members qualify for are labouring/ shift work positions. Increased oil sand development affects cost of living, time on the land and changes focus of education

Stressor	Selected Impacts	Community Perception "industry" = oil sand development/companies	Relation to Industry
Increased Population	Increases pressures on local resources and reported conflicts between Aboriginal and non-Aboriginal people, increased cost of living, increased access to drugs and alcohol, decreased feelings of security, decreased community cohesion.	<ul style="list-style-type: none"> • Industry-related population growth has increased the level of goods and services available in Fort McMurray. • The influx of non-Aboriginal workers has affected the cost of living and educational requirements for employment. • Industry has increased access to drugs and alcohol. • Increased access on traditional lands by non-Aboriginal people. 	The simultaneous development of several large oil sand projects in the region has created an unparalleled demand for skilled workers which has resulted in a rapid increase in the number of non-Aboriginal people moving into the region – thus affecting the cost of living and social conditions.

The stressors included in this report have been based on the input of local community members and are supported by the numerous EIAs, community reports and scholarly papers listed in the Index and in Appendix A.

A combination of indicators suggested in section 6, can help understand the relative influence of the oil sands development as opposed to other external and internal factors, in the changes in Fort McKay culture. Especially useful for this task are the third level indicators and its relationship with second and fourth level indicators.

Industry stressors affecting each activity and the related effect it has had on core community values is also described and presented in input/output models for each activity.

4.1 Hunting

1960s Hunting

The importance of hunting to the Fort McKay culture cannot be overstated. "Our hunting and harvesting of meat is at the very centre of the Fort McKay way of life," (FMTA 1983). As hunters and gatherers, harvesting is important economically, culturally and socially. It provides food, reaffirms the continuing vitality of Aboriginal culture and strengthens the kinship links through which harvesting is organized and wild food distributed (Brody, 1981, 1987; Feit, 1982; Martin, 1980, FMTA 1983, FMFN 1994, Appendix A). "Hunting on the family trap

line is synonymous with meat for the table, with stewardship of all natural resources; with extended family sharing; with socialization of children; with the role of the elders as carriers and teachers of traditional environmental knowledge; and with cultural sustainability," (FMFN 1994).

During the 1960s, as more community members began to carry out hunting and trapping from the Fort McKay settlement, family trap line areas became the most common hunting areas. From these areas, families worked as a unit to prepare for the dry meat hunting season and the spring hunt (FMTA 1983: 88, 90, 91). These times spent on the land were crucial to the passing of skills, knowledge and traditions among the Fort McKay people.

Values – 1960's Hunting

As Figure 4 illustrates, hunting is associated with all the core cultural values instilled through Fort McKay culture. In the 1960s, hunting was directly related to the following core cultural values:

- Self-reliance
- Rootedness
- Rhythm of Nature

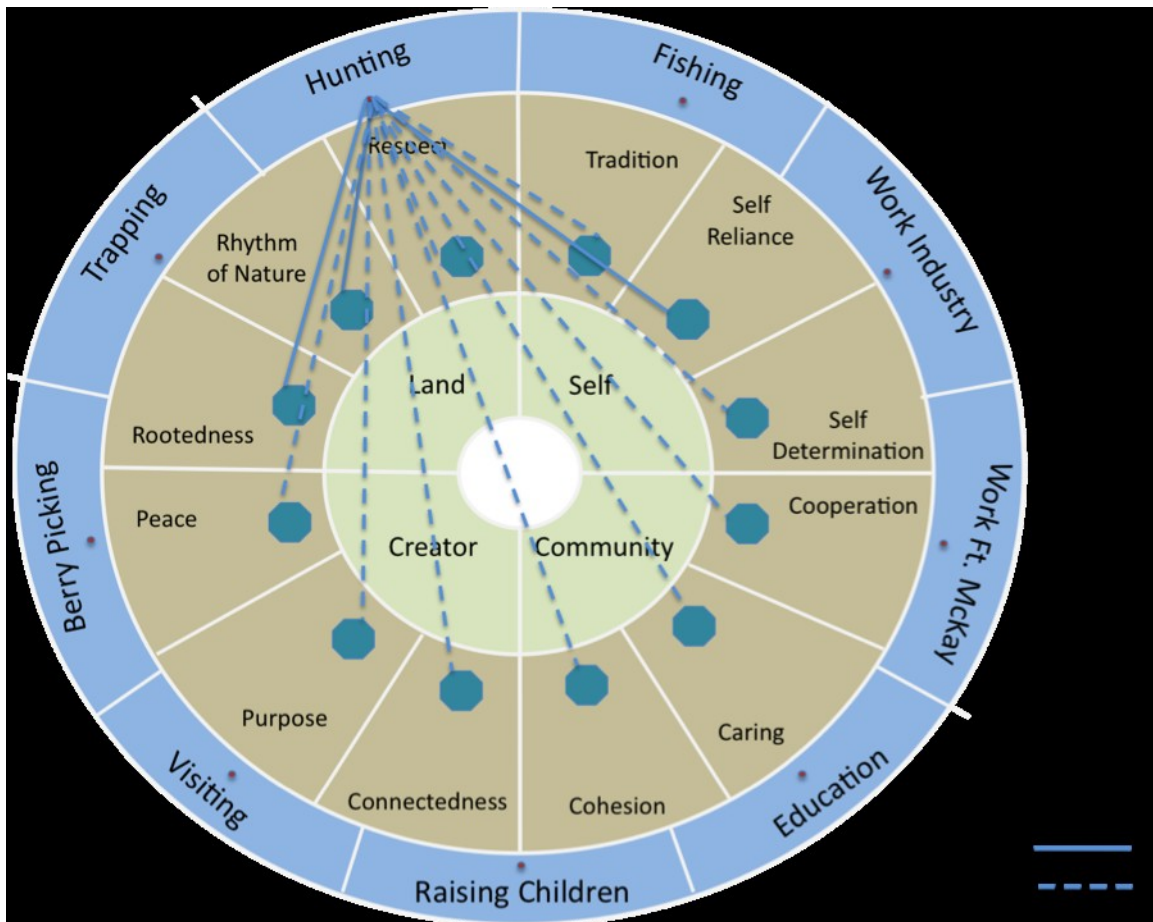


Figure 4: Hunting-Traditional Value Links – 1960s

- Self-reliance:** Hunting is directly linked to the value of self-reliance. “We didn’t have to rely in anything, anyone. Providing for ourselves made us proud,” (Fort McKay Workshop 2008).
- Rootedness:** Hunting is a land-based activity and is heavily dependent on a healthy ecosystem. It is directly related to the value of rootedness. Aboriginal people experience sense of place in a very profound way. While sense of place supposes a separation between self and place that allows the self to appreciate the place, “rootedness” means being *part of* the place (Hay, 1998). The bond between Aboriginal people, the plants, animals, landscape and local spirits is considered indissoluble – so land could not be ‘bought’ or ‘sold’. What is more, the human/land link was timeless; it was established prior to birth and continued after death. It is frequently said of the Aboriginal people “that they do not own the land, the land owns them” (Mercer 1975:130). “Everything we had came from the land... We are people of the land. Without the land we feel lost. Without the land we are nothing,” (Fort McKay Workshop 2008).

- **Rhythm of Nature:** Fort McKay Tribal Administration (1983) explains extensively that the way traditional life was organized in harmony with nature (Rhythm of Nature) through the seasonal round, where hunting occupied a large part of the communities' life in the yearly cycle. "Because we are a people who come from the land, it should not be surprising that our sense of time and our seasons should differ from those who have a different relationship to the land and a different form of economy," (FMTA 1983: 78).

Through associated activities like protocols, resource management and sharing, 1960's hunting was indirectly related to the following cultural values:

- Cohesion/bonding
- Cooperation
- Caring
- Purpose
- Peace
- Connectedness
- Tradition
- Respect
- Self Determination

Hunting is closely associated to other activities. Through sharing and providing for one's family, hunting has a strong relation to values associated with Community:

- **Cohesion/Bonding:** "A fundamental principle which guided Dene society was the concept of sharing responsibilities for the hunt and the products of its outcome," (Coutu et al 2002: 59). Sharing strengthens the ties between community members promoting community cohesion within the kinship system. "When food, shelter, and so on was available to an individual, one had an obligation to distribute those goods in a prescribed manner within one's own kin group. Conversely, when one's kin had goods available, one had a claim to a set portion."
- **Cooperation:** Although hunting was not necessarily conducted in groups, it required a high level of cooperation by family and community members. Families worked together transporting meat and other body parts, preparing hide, butchering and smoking meat.
- **Caring:** The value of caring is also manifested in the actions of sharing and providing.

"The life-sustaining activities associated with the hunt were naturally the source of considerable ceremony and ritual," (Coutu, 2002, 69). Hunting, through protocols, is related to values associated with the Creator:

- **Purpose:** "My way of life is spirituality. Offer through protocol to the Creator and asked the four-legged being for his family." "Medicine People with the capacity to "see" and locate game were revered by community members.

- **Peace:** “After hunting, we do a ceremony to give thanks and share, to be in peace,” (Fort McKay Workshop 2008).
- **Connectedness:** “In the old days people were powerful. They used their own minds, they were close to Mother Earth, they didn’t use drugs or alcohol. Being on the land brings us close to our ancestors. We are better physically, mentally [and] emotionally,” (Fort McKay workshop 2008). “Silence, itself a spirit of the forest, became part of the hunter’s enhanced state of awareness... The greatest peril of life was the recognition that the hunt, in its essence, was a hunt for souls. Therefore, great respect was accorded to the animal spirits who offered themselves in sacrifice to the hunter,” (Coutu et al, 2002: 68-69).

Planning, harvesting and distributing wild food is fundamental to the identity of members of Fort McKay and values associated with the Self:

- **Tradition:** “Hunting and fishing is addictive, you crave it. We are hunter-gatherers. It is inside of us.” “Eating traditional foods is part of who we are”. In that sense, hunting has a strong relationship to tradition. As explained by Hobsbawm (1983), protocols have a function of transferring knowledge and values from generation to generation.
- **Respect, Self-reliance and Self-determination:** “Back then hunting was to survive, feed families; there was an inherent respect in the process, for animals and for each other.” “[We] used to get everything from the land, for example moose hide for ropes, gloves... make moccasins... we didn’t waste anything; everything was used.” “[We] didn’t have to rely on anything, anyone. Providing for ourselves made us proud, spirit uplifted, self-esteemed,” (Fort McKay Focus Group 2009). Understandably, expert hunters gained considerable social respect for their abilities to provide for all community members,” (Fort McKay Workshop 2008).

Industry Stressors Affecting Hunting

Environmental and social effects resulting from oil sand development within Fort McKay's traditional territory has been well documented in numerous environmental impact assessments (EIAs), community reports, and regional research projects (Appendix A). The following descriptions of stressors caused by industry are derived from local observations and the knowledge of Fort McKay community members. Indicators for select stressors will be described in more detail in the *Environmental Assessment of the Fort McKay Community Specific Assessment*.

Industry has changed the land:

In the early 1980s, the Fort McKay Tribal Administration (currently known as the Band Council) declared that, "It is impossible for us to continue to withdraw and still have enough land to serve as an economic base for us in the ways that we choose. This is particularly clear in the case of the trap lines," (FMTA 1983: 34). Since that time there have been a number of major projects approved within McKay territory, particularly near the Athabasca River. Today over 59% of the most intensely used portion of Fort McKay's traditional territory has been affected by industrial development; oil sands development has transformed the landscape, affected wildlife populations, air quality and water. Community members remain sceptical of future reclamation success. Because of oil sand development, living a subsistence lifestyle is no longer an option for the people of Fort McKay.

"The industries will not be here forever. Then what? Who is going to teach them the trails where to go? The landscape has changed. Now there are hills where there were none before. Trails have moved. I don't know how to get to my own trap line."

"Now everything is gone and it's hard to accept, but what can you do? You are forced to walk away. The Land will never be the same."

(Fort McKay Workshop 2008)

Industry has contaminated our food:

Industrial emissions and wastewater discharges are a continuing source of concern for community members. In addition to perceived health effects, community members worry about the effect industrial pollution is having on wildlife health, and thus the quality of wild meat. This deters some individuals from hunting near the community. The perceived need to travel further distances and the related cost also discourages some individuals from hunting.

"We don't eat moose anymore for what they eat and the pollution."

"You have to go way out into the mountains to hunt. I don't eat anything from around here."

“Now we have to travel to get what we need and travel costs money.”

(Fort McKay Workshop 2008)

Industry has changed access to our traditional land:

Changes in access have affected the territory in two separate ways. On the one hand access onto or through active project areas can be limited by industrial proponents for safety reasons.

“They [industry] blocked us. No fishing, no hunting, nowhere to go.”

“...Companies are really locking things up... long waits and gates to cross lease areas.”

“Now we need permission to go onto our trap lines.”

(Fort McKay Workshop 2008)

On the other hand, cut lines and industrial access roads through crown land open up the remaining traditional harvesting areas to recreational hunters. This increases competition for game and can lead to conflict and property damage. This increase in roads and cut lines has also made it easier for community members to travel to some hunting grounds. This has affected the number of people that can travel to a base camp, the types of supplies they bring, and thus the “way” they hunt. Easy access to hunting areas indirectly reduces community reliance on traditional knowledge and hunting skills.

Industry has affected the animals:

The increased noise, traffic and population in the region associated with oil sand development has caused habituation of the animals traditionally hunted by Fort McKay and modified the way in which people hunt. This habituation reduces community reliance of traditional knowledge and traditional skills.

“Long ago, moose were smart. To hunt a moose you had to be alert... Today, moose stand on the road and stare at the cars and trucks passing by. It is boring hunting for moose. They are not scared anymore: they are used to people now...”

(Fort McKay Workshop 2008)

Many community members also feel that industry has driven smaller animals and birds away.

“There used to be so many porcupines, skunks, all kinds of animals – now nothing. I don’t know why – the pollution I guess.”

(On the Way to Moose Lake 2002)

Reliance on the wage economy has changed the way we spend our time:

The intensification of the wage and market economy and its effects on time use and patterns of consumption has also affected the way people hunt. Individuals that work at the mines don't have as much time to hunt. Often hunting trips are carried out on the weekend or during vacation, and are reliant on family and friends that have trap lines within reasonable travel distance from Fort McKay.

"Nowadays both parents have to work to pay for bills, rent."

"There are only a few kids that can hunt. You get up at 5:30 am to go to work-there is no time to hunt."

(Fort McKay Workshop 2008)

"Indians are not as tough as they were long ago... The people were outside all the time hunting and preparing food to feed the family and the dogs," (Raymond Boucher [1933-1998] in (Coutu et al. 2002)

Time pressures related to work and school have affected the composition of hunting parties:

Today Elders have less of an opportunity to share their knowledge and experiences out on the land. Working adults and youth attending school may head out into the bush on weekends in small groups to camp, hunt and socialize, but community members suggest that it is uncommon for Elders or experienced adult hunters to join these excursions. This reduced intergenerational transfer of knowledge is a concern for Elders in the community. Knowledge holders and experienced hunters and trappers insist that traditional skills must be taught out on the land, but opportunities are scarce due to work and school schedules.

"We learn by doing – you can not get this knowledge – the meaning behind the actions – from a book."

(Fort McKay Workshop 2008)

Wages from industry jobs affect the way we hunt:

Many of the adults in the community work within the wage economy. The ability to drive to hunting camps, bring modern supplies and use modern technology reduces the need to rely on traditional skills and knowledge. "There aren't many young people that can harness a dog these days," (Fort McKay Workshop 2008).

Industry-related population growth has increased the level of goods and services available in Fort McMurray:

Time-limited schedules, land disturbance and access to shopping in Fort McMurray have made shopping for non-traditional foods an attractive option for

many working community members. Fewer people rely on traditional foods for survival.

“In our time if we didn’t hunt or fish we didn’t eat. That wasn’t a nine-to-five job. Everything you did in the day (you did for survival)... there was no day off.... Now people don’t take the time.”

“We used to live off the land. People were healthy. Now we eat from the store... Eating beef and pork makes Indians sick.”

“Now we go to Safeway, the liquor store, the drug dealer (whatever) but we don’t go back to our culture.”

“Everything we had came from the land. Now we don’t rely on anything on the land.”

(Fort McKay Workshop 2008)

2009 Hunting

Figure 5 illustrates there has been a shift in terms of the traditional values that influence hunting today. The following cultural values related to hunting have been strengthened by modern day hunting practices:

- **Cohesion:** Changes in hunting have strengthened its function of cohesion and bonding between peers – as hunting has become more of a recreational and social activity: Now people go hunting to “have a good time.”

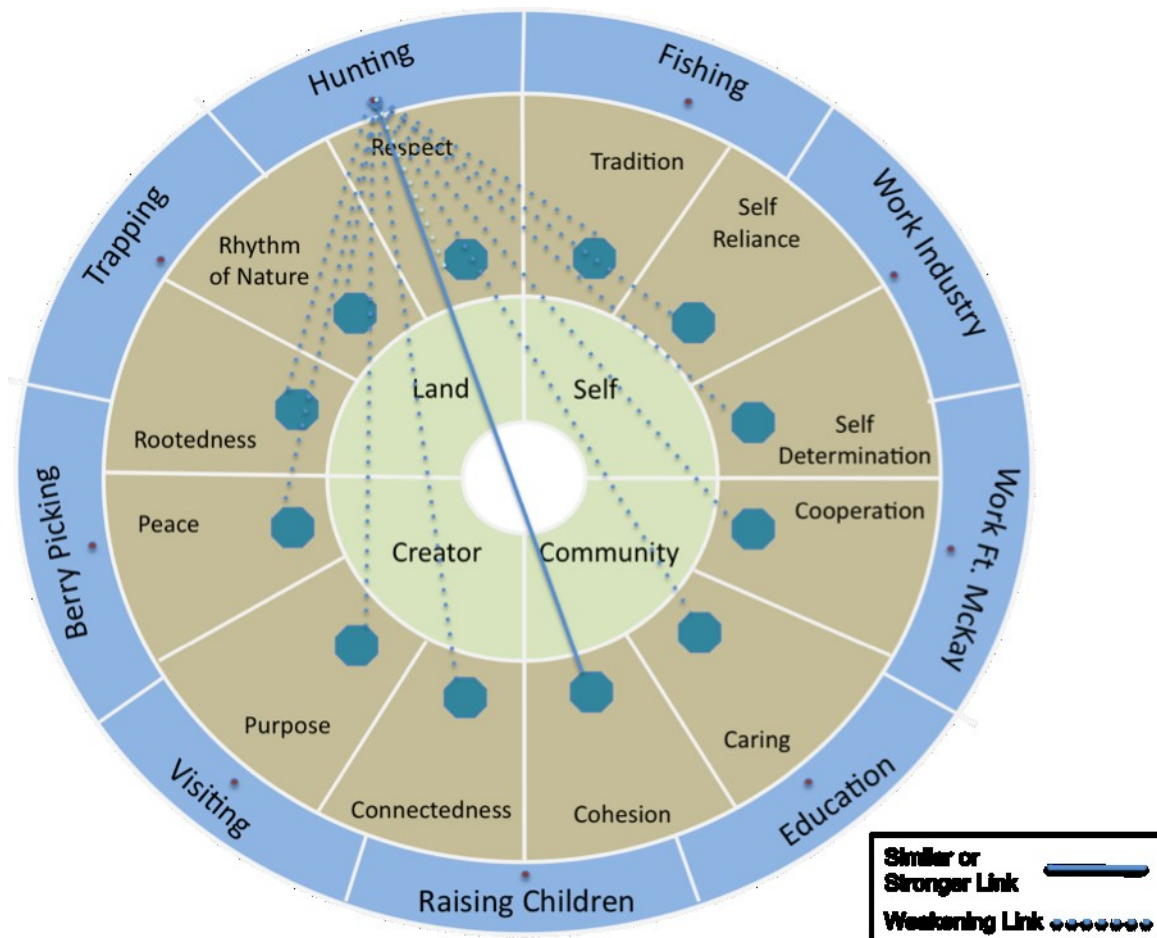


Figure 5. Hunting-Traditional Value Links – 2009

The following core cultural values related to hunting have been severely affected by industry stressors – resulting in modern day hunting practices that no longer instill the same set of values related to Self:

- **Tradition:** As more land around Fort McKay becomes unavailable and people have less time and/or need to go hunting with their elders, fewer people have the opportunity to learn the traditional ways of hunting. Knowledge, skills, and traditions can only be passed on out on the land. Hunting has lost

part of its function to instill the value of tradition (transfer of knowledge and values). This function has not been totally lost. There are people who seek and share traditional knowledge from within the community “Young people that want to learn traditional ways seek knowledgeable people.” “[Sometimes] when we go hunting we go towards the mountains where there are no distractions. We take a couple of youth and we explain what we can in Cree and do protocols and teach about hunting and the meanings,” (Fort McKay Workshop 2008).

- **Self-reliance** and **Self-determination**: The linkages to Self-reliance and Self-determination have been disrupted and changed. Earlier studies in Fort McKay suggest, “Traditional patterns of consumption appear to have emphasized independence and self-sufficiency. As people become more accustomed to participation in a market economy, they have become increasingly dependent on others for the basic essentials of life as well as for the luxuries,” (Van Dyke, 1978). Workshop participants suggest, “There are only a few kids that can hunt.”

(In the past) “Everything we had came from the land. Now we don’t rely on anything on the land” (Fort McKay Workshop 2008). Community members agree, “Now the value of the money is more important because it is more critical for day to day needs than hunting. Even when in the 60s hunting and trapping provided money, but not today.” “Now, if you don’t have money, you don’t eat,” (Fort McKay Workshop 2008).

The values related to Land have been affected through modern day hunting practices:

- **Rootedness**: The linkages between hunting and the value of rootedness, have been weakened as the economic (subsistence) role and opportunities for hunting are reduced. Rootedness is affected because far fewer people have the ability to spend long periods of time out on the land. Industry has affected significant tracts of traditional hunting and trapping territory; in particular those areas closest to Fort McKay. “Through concrete in cities you are isolated from Mother Earth.” “Everything was taught on the land. We identify places in our language,” (Fort McKay Workshop 2008).
- **Rhythm of Nature**: The linkages between hunting and the values associated with the Rhythm of Nature have been weakened. Hunting seasons no longer dictate the way community members spend their time and with whom they spend that time. Work (and school) schedules require community members to spend fixed amount of times with non-community members in non-traditional roles. Hunting is still done during specific seasons, but work (and school) schedules affect how long hunting excursions may be, and thus indirectly affect where hunting can take place. “[We] lived by the season: moose hunting, fishing, ducks, roe, berry harvesting. Now we live by the clock,” (Fort McKay Workshop 2008).

- **Respect:** The fact that people don't depend on hunting for survival has also affected its ties with Respect. Grocery stores in Fort McMurray provide a food source year-round, so conserving food and food sources are not as strongly instilled. "Some food even gets wasted which leads to less respect," (Fort McKay Workshop 2008). Industry work camps are particularly noted for wasting food.

The values related to Community have been affected through modern day hunting practices:

- **Cooperation and Caring:** Community members feel that the independent nature of the wage-based economy/purchase of goods coupled with reduced hunting has weakened its link with community values such as Cooperation and Caring. Sharing still takes place among the relatively smaller groups including family and friends: "A group of men would go out and hunt and split the animal amongst themselves... I would split it with my sons or uncles or relatives and the rest of the people that we hunt with... We still share," (Coutu et al. 2002 p. 59).

However, there is a common belief that, "Money divides families. Long ago there used to be sharing. Now everyone is for themselves," (Fort McKay Workshop 2008). Increased demographics have also changed the way people share. "People are sharing differently - in part because of the number of people in the community," (Fort McKay Workshop 2008). The industrial boom has forced people who can't afford to live in Fort McMurray to move back to Fort McKay. As the number of people living and moving through the community increases, people become less familiar with each other. A reduction in hunting and the increase in population both affect community perceptions of diminished sharing. "When someone killed something everybody shared. Today you hear about it; they don't share; you have to buy it in order to have some," (Fort McKay Workshop 2008).

- **Peace, Purpose and Connectedness:** Although there is still a connection between hunting and spirituality: "We need to go hunting to keep spirituality going," (Fort McKay Workshop 2008), protocols are not as commonly practiced. Community members describe this change as weakening the link with the spiritual values of peace, purpose and connectedness: "We don't have time to do protocols anymore because of the fast pace of life... Young people don't really do protocols." "Certain parts of the moose are used for offerings. Now not too much," (Fort McKay Workshop 2008). As explained above, Industry has an indirect effect on the weakening of spirituality through hunting because of the loss opportunities to hunt due to loss of land, and the pressures on community to adjust to the wage economy.

Industry Effects on Hunting

Figure 6 summarizes the effects of Industry stressors on hunting. The first part of the figure (1960) represents the relationship that hunting had to values through its

inputs and outputs (associated cultural tools and characteristics). As industry stressors affected the physical and social environment, inputs and outputs of hunting have been modified, which reflects the relationship hunting has with traditional values.

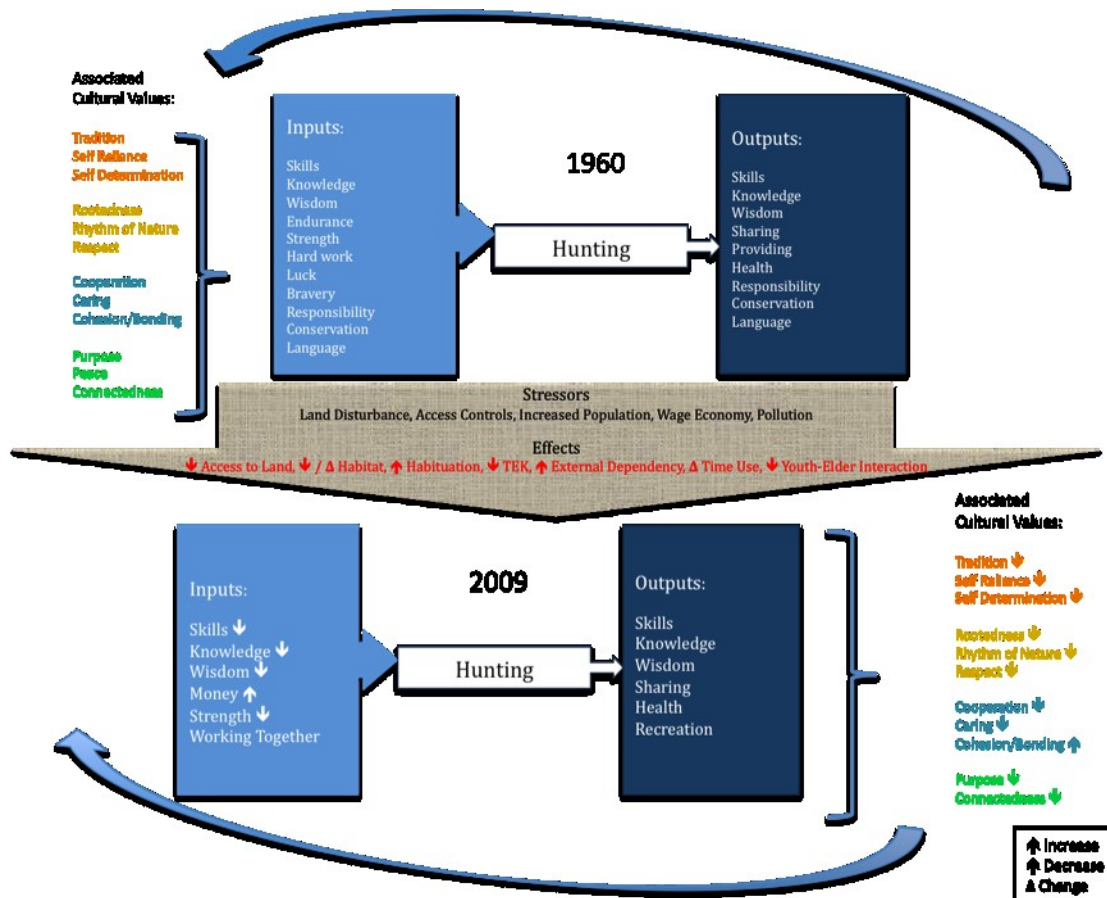


Figure 6: Industry Stressors Effects on Values Instilled through Hunting

In the 1960s hunting was an important part of Fort McKay's economy and culture. Hunting was directly and indirectly related to all core cultural values. In present days, as a result of industry activities and its stressors, inputs associated with hunting have been modified and consequently the quality and quantity of its outputs have been reduced. This has affected the culture as a whole.

4.2 Education

In this study, education is understood as the transfer of specific knowledge and skills. Education in here is used to refer to both, traditional education and formal/official education in the school system. In terms of culture, education is closely associated with more traditional definitions of "socialization" which refers to: "(The) process by which persons acquire the knowledge, skills, and dispositions that make them more or less able members of their society," (Van Dyke et al. 1978: 88). Cajete (1994: 33) notes that in traditional Aboriginal systems

teaching and learning were intertwined with the daily lives of both teacher and learner, "Every situation provided a potential opportunity for learning, and basic education was not separated from the natural, social, or spiritual aspects of everyday life."

To a large extent, education of Fort McKay youth (and thus the socialization of those students) has been taken over by Western Society schools.

When the first school was established in Fort McKay the mothers and the school age children would increasingly stay behind in Fort McKay during the school year. Elders started to share their role as teachers. However, even after most of the people moved to Fort McKay around 1960, the children would be taken out of school for the spring hunt. Families as units would be involved in the preparation of the dry meat hunt season. "The school was reasonable in not trying to keep the children from helping in these preparations for the next season," (FMTA 1983: 90). Later, as soon as school was out, the whole families would move out into the seasons'; activities for fishing, visiting, gathering, collecting food and hunting (FMTA 1983: 93). By maintaining ties to the traditional economy, community members were able to continue to transmit cultural values through the traditional life style.

Values – 1960 Education

In the 1960's, prior to the intensification of industrial development in the region, mandatory school had already started to affect Fort McKay culture. However, interaction between generations facilitated the continuance of traditional education systems – especially during the fall and spring hunt, and in periods of preparation for seasonal work. In that sense, it is hard to separate the pure aspects of transferring knowledge and skills from other daily life activities of the 1960s.

Figure 7 illustrates the multiple links between traditional education and values. Some values are also instilled through the western schooling system. This 1960s combination of traditional and formal education is directly linked to the following core cultural values:

- Tradition
- Self-reliance
- Self-determination
- Cohesion
- Caring
- Cooperation
- Rootedness
- Rhythm of Nature
- Respect
- Purpose
- Connectedness
- Peace

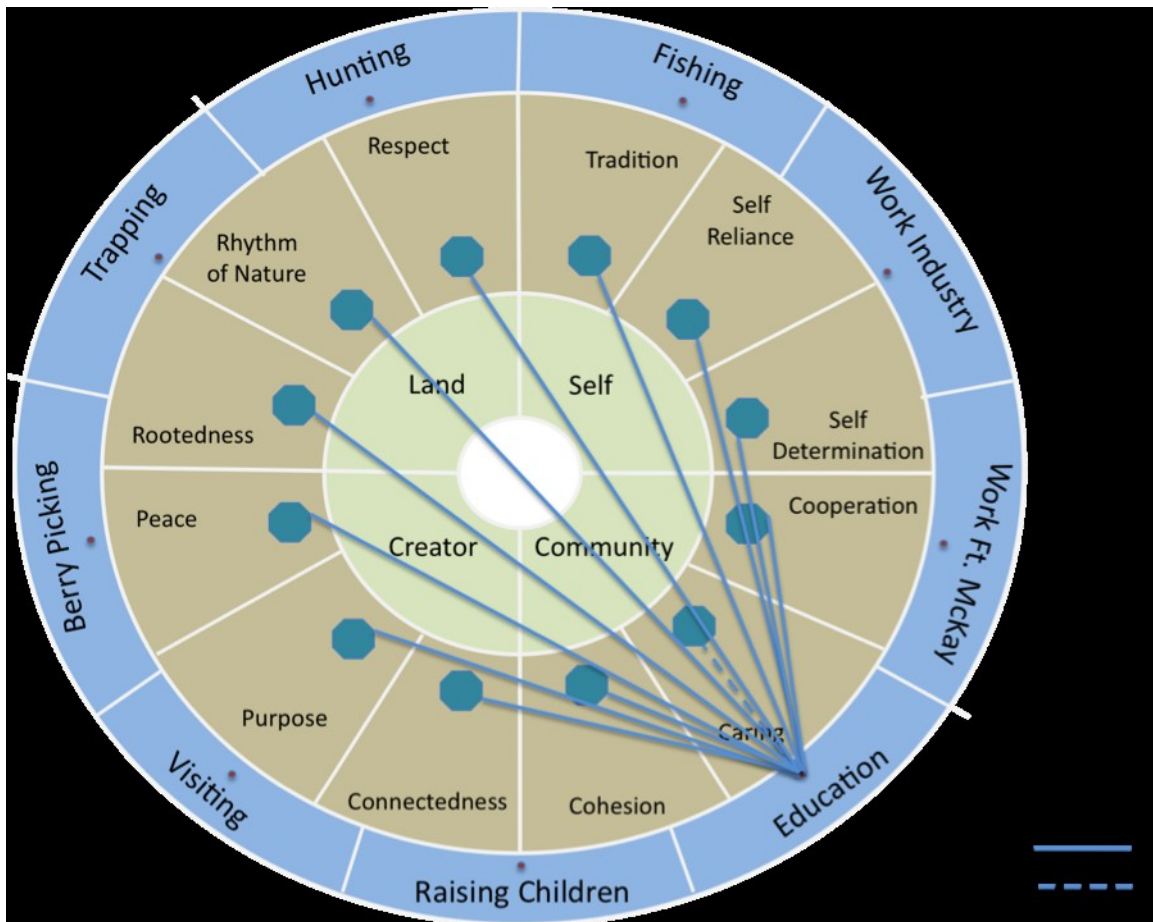


Figure 7: Education-Traditional Value Links – 1960s

Through the development of personal skills and knowledge, education has a strong relation to values associated with Self:

- **Tradition:** As an activity intertwined with most other activities of daily life, 1960s education had a role in instilling culture and values. Traditions pass knowledge from one generation to the next as people perform tasks together while sharing stories and appropriate techniques. “Knowledge came from doing it with family (berry picking) and through storytelling while doing it,” (Fort McKay Workshop, 2008).
- **Self-Reliance** and **Self-Determination:** Teaching/learning activities gave students the ability to provide for themselves and their families within the mixed economy. By gaining skills pertaining to a traditional lifestyle and a western economy, Fort McKay youth were better prepared and able to decide which type of lifestyle they wanted to pursue during their adult life.

Education has strong relation to values associated with Community:

- **Cohesion, Caring and Cooperation:** 1960s educational activities occurred in classrooms, but also in small, cross-generational community groups enabling values of Cohesion, Caring and Cooperation to strengthen. “We would learn different things from different people.” Families taught traditional ways on the trap line.” Cajete (1999) notes: “Teaching and learning occurred within very high-contexted social situations. The lesson and the learning of the lesson was intimately interwoven within the situation and the environment of the learner.”

Because youth still participated in seasonal harvesting activities, education retained values associated with Land:

- **Rootedness, Rhythm of Nature and Respect:** In conducting teaching and learning land-based activities the values of rootedness, rhythm of nature and respect were instilled. Time on the land increased each individual’s familiarity with their surroundings, their knowledge and sense of responsibility for the land, water and the animals that they depended on for survival. This knowledge and experience facilitated the use of place names and provided context for understanding the community’s culture and history. The values associated with land were clearly at the core of the education process: “Teaching and learning was a natural outcome of living in close communion with the natural world,” (Cajete 1999: 53).

Time with Elders and a continuing reliance on traditional foods maintained Spiritual aspects of 1960’s education:

- **Purpose, Connectedness and Peace:** The spiritual values of **Purpose, Connectedness** and **Peace** were embedded in education through spiritual practices, ceremonies and protocols: “We teach through prayer, we need to take the time to talk to the youth... when you believe you are connected to the higher power; connected to our ancestors, it gives you strength.”

Industry Stressors Affecting Education

Oil sands development has affected educational systems within Fort McKay. The following descriptions of industry-caused stressors are derived from local observations and the knowledge of Fort McKay community members.

Industry has changed the land:

In the early 1980s, the Fort McKay Tribal Administration stated, “It is impossible for us to continue to withdraw and still have enough land to serve as an economic base for us in the ways that we choose. This is particularly clear in the case of the trap lines,” (FMTA 1983: 34). Since that time, there has been a dramatic increase in oil sand development within Fort McKay’s core traditional territory. People from Fort McKay can no longer use the land around the settlement to support themselves, and opportunities to carry out traditional activities have been reduced.

“Now the only opportunity to learn traditional ways is the Moose Lake retreat.” (Fort McKay Workshop 2008)

The new reliance on the wage economy has increased the need to stay in school, and elders are no longer able to fulfil the role as primary teacher. As Van Dyke wrote in 1978, “From his own society, (an Aboriginal person) receives a knowledge of the values and skills pertinent to a traditional way of life; from the school system, he receives a totally conflicting and different set of messages,” (Van Dyke et al. 1978). Young people now look to individuals from outside the community for skills and knowledge that will prepare them for their adult life.

Industry has affected the cost of living and educational requirements for employment:

Due to the non-native population explosion in Fort McMurray, the cost of living has increased dramatically. With limited hunting opportunities and bills to pay, people from Fort McKay seek out high paying jobs that have specific educational requirements. Prior to the 1960's many community members participated in the wage economy by taking on seasonal jobs that occurred out on the land (trapping, forest fighting, and operating barges on the Athabasca River etc.). These positions did not have the same educational requirements that are imposed by oil sand companies. The combined factors of a mixed subsistence-based economy supplemented by seasonal work made the relative importance of education in Fort McKay lower than it is today.

The community of Fort McKay recognizes the need for formal education in order for their people to participate and excel in the modern economy. The Fort McKay Community Plan (2006) suggests that community members would like to see Fort McKay youth managing its companies, and providing professional services (such as nursing, teaching) in the community. General labour jobs associated with oil sands development require a minimum grade 12 or equivalent. For some, these jobs are not considered adequate long-term roles and community members feel their ability to benefit from the development of their traditional territory is still unrealized. To meet industry job requirements and community requirements for non-labouring positions, students must complete high school and attend post-secondary institutions. The amount of time and commitment required to be successful in an academic setting limits the time youth can spend out on the land and the time they spend learning from Elders. This is further amplified, since Fort McKay students often attend high school in Fort McMurray.

“Kids are invited to the Elder gathering, but hardly any youth were there because the parents didn't want to pull the kids out of school for a day,” (Fort McKay community workshop September 2008).

As fewer young people have time to carry out traditional pursuits, also in part due to the fact that there are fewer opportunities to carry out traditional activities near the community, traditional knowledge and traditional skills are diminished.

Almost all students from Fort McKay find the transition to high school in Fort McMurray very challenging. First Nation and Métis students tend to be isolated in high school and therefore their graduation rates are low (2 or 3 students per year) – most of whom are in the IOP program, which does not allow graduates to register in college.

“Young people don’t want to be First Nation because they will be laughed at, put down. (Our youth) would rather be more ‘white’ or more ‘black’ [referring to rap music and clothes]. White people want everyone to be like them or they will be against you.”

(Fort McKay Workshop 2008)

Racism has discouraged some youth from actively pursuing their culture in favour of “fitting in” with the dominant society.

The travel time required for youth to attend high school in Fort McMurray makes it difficult to attend extra-curricular activities and receive help from teachers if needed. Typically less than 50% of the students who enter Grade 9 graduate from high school.

The new E-learning program in Fort McKay has helped to address some of the challenges, but the community continues to seek out ways to increase the success rate for students. In 2005 the First Nation developed a strategic plan to guide its activities into the future. This plan calls for community leadership to work with all stakeholders to develop strategies to ensure more First Nation graduate from primary, secondary and post-secondary institutions (FMFN 2006). This is seen as critical in terms of regaining some control over their future.

2009 Education

Figure 8 illustrates, there has been a shift in terms of the traditional role and values related to education. The focus of education has changed in order to prepare community members for the wage economy. “Now they educate for jobs outside the family, white jobs,” (Fort McKay Workshop 2008). The community, in particular Elders, no longer play a major role in terms of passing on knowledge and skills. “It depends on you to teach your kids.” “Before (education) was more a community or extended family matter,” (Fort McKay Workshop 2008). These changes in education have shifted the focus from traditional values to western values – and the pursuit of individual benefits rather than community benefits. The following core cultural values continue to be instilled through modern education systems:

- **Cooperation and Cohesion:** There are some strong links between education and the acquisition of knowledge and skills, and values such as respect, Cooperation and Cohesion. When asked, “What do people get out of going to school?” Community members answered: “School is knowledge, a good job, and good role models. (You learn how to) try your best, try hard, treat others like how you want to be treated,” (Fort McKay Focus Group, 2009).
- **Self-determination:** Community members associate education with power and the ability to decide how to make a living. One community member is noted as saying, “Get an education – you can go anywhere,” (Fort McKay Workshop, 2008).
- **Respect:** The people of Fort McKay believe the western school system promotes respect: “I learned about respect, but I learned in school.” (Fort McKay Workshop, 2008). However, the respect taught in western schooling is seen as being more narrowly focused on ‘respect for the community.’ On the other hand, traditional teaching methods instil respect for life, community, nature and the spiritual world – including their ancestors. “In [traditional] camps you learn about the simple things: to appreciate, to thank and then to share and respect,” (Fort McKay Workshop, 2008).

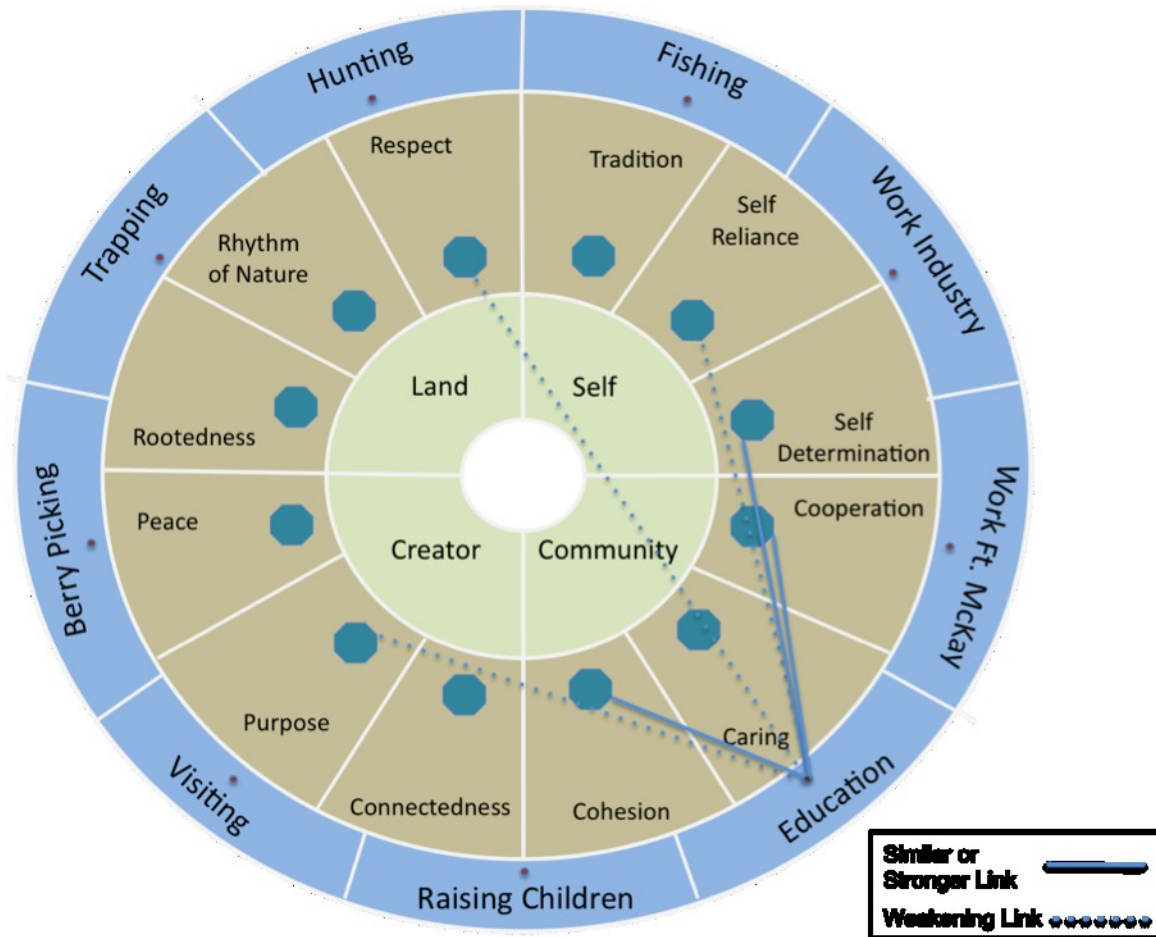


Figure 8: Education-Traditional Value Links – 2009

The following core cultural values have been weakened or are not instilled anymore by the modern educational systems:

- Tradition
- Self-Reliance
- Rootedness
- Rhythm of Nature
- Purpose
- Peace
- Connectedness
- **Tradition:** Tradition is one of the values that have been affected the most by the change in education systems, due in part to the rapid expansion of the wage economy and industrial impacts to the land and water (which does not allow the community to rely on the traditional economy). As described earlier, fewer young people have time or opportunity to carry out traditional pursuits. As a result, traditional knowledge and traditional skills are diminished.

“Family members are responsible to teach traditional ways. This is not happening because to live now, two parents need to work to get enough money. Because they are always working, the parents don’t know (how to do traditional activities), and kids can’t speak to their grandparents. Kids are invited to the Elder gathering, but hardly any youth were there because the parents didn’t want to pull the kids out of school for a day.”

(Fort McKay Community Workshop September 2008)

There are still opportunities to pass on traditional ways: such as the Moose Lake retreat, the regional gathering and the camp at Lac St. Ann. However, these events are limited and fall outside the norm of day-to-day living. Rather than being part of the natural order of the community, it involves extra effort from those interested in learning about traditional culture. “Young people that want to learn traditional ways seek knowledgeable people.” Programs to fill the gap of traditional education, including TEK, have been developed by the band with industry support. These programs are explained in Section 4.4 “Working for Fort McKay.”

- **Self-reliance:** Community members recognize the link between education, a good job and money – all necessary in order to provide for themselves and their family. However, the element of money and need to purchase goods from a store in Fort McMurray has weakened the way they perceive and value Self-reliance.
- **Rootedness, Rhythm of Nature, Purpose, Peace, and Connectedness:** All are land and spiritual-based values that have decreased with the changes in education systems. Westernized schooling takes up most of young people’s time. When not in school, traditional teachings must compete with television, video games, “rap music” etc. “Ceremonies help learn and pass on the knowledge. Now there are no values left; young people don’t get into it.” “There are a lot of things that keep kids busy that is why they learn the dance; but [they do not learn] the meaning, because they don’t sit to listen. They don’t get the spiritual aspect of the dance. There are other interests so they lose interest in the culture,” (Fort McKay Workshop 2008).

Industry Effects on Education

Figure 9: Industry Stressors Effects on Values Instilled through Education summarizes the effects of Industry stressors on education. The first part of the figure (1960) represents the relationship that the activity of education had to values through its inputs and outputs (associated cultural characteristics). As industry stressors affected the physical and social environment (including pressures tied to the wage economy and requirements for jobs) inputs and outputs of education have been modified, which reflects on the relationship of education with traditional values.

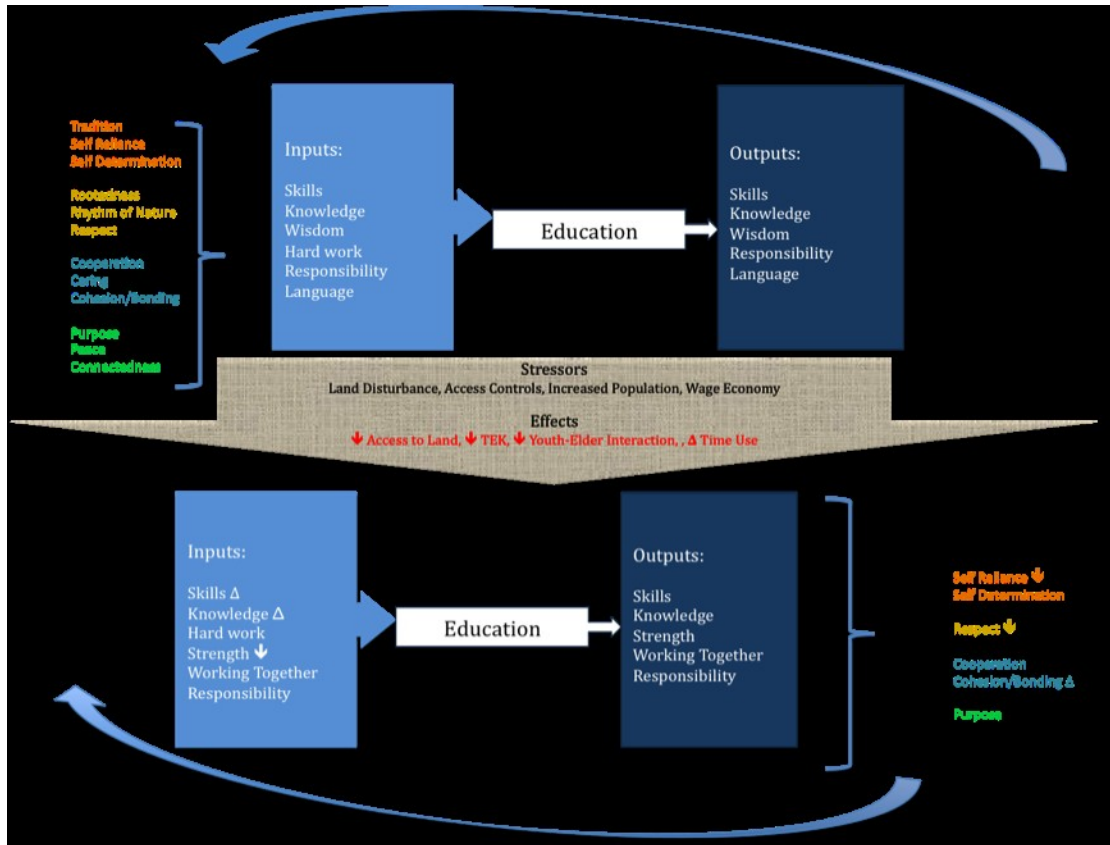


Figure 9: Industry Stressors Effects on Values Instilled through Education

4.3 Berry Picking

The role berry picking has in Aboriginal culture has been documented by scholars across Canada (McAvoy and Shirlla in CCLR 2005, Parlee et al 2005, Thornton 2005, Emory 1998). The importance of berries and other boreal forest plants to the people of Fort McKay has been more specifically described in numerous EIAs (Appendix A), community reports (FMFN 1994, Tanner et al 2001, BG-TEK Consulting 2003, FMFN IRC 2004) and regional documents (Dersch and Bush 2008). While important in terms of their medicinal and nutritional value, Fort McKay community members also associate many social and cultural values with berries and berry harvesting.

Dene and Cree people in the region used to manage berry patches by selecting areas for harvesting, limiting harvest quantities and by using fire. The people of Fort McKay suggest that prior to, and during the 1960s, berries were found and harvested “everywhere” – although most community members recall picking berries in and around McKay, on family trap lines, and at traditional seasonal harvesting/gathering areas along the Athabasca River (such as Poplar Point and Tar Island) and around Moose Lake. The Traditional Land Use and Occupancy Study carried out by Fort McKay in 1994 maps berry harvesting areas throughout the territory. The maps in this document show parallels between intense berry harvest areas and important travel corridors such as the Athabasca River Corridor (including upstream sections of all major tributaries), the Legend-Namur-Gardiner-Sand-Eaglenest corridor and the McKay River (FMFN 1994: 26).

“People would gather (berries) mainly in July and August; we would go out when the berries were ready. There were berries everywhere. We used to go to Target Road over here and pick as a group. We went as 2-3 families and we would bring a lunch. We never had bridge in those days.”

(Fort McKay Workshop June 2009)

During the 1960s, berries continued to be harvested from July to September when the berries were ripe, with the exception of some species (such as rosehips and some cranberries) that would freeze on shrubs and be available through the winter. This prime gathering season corresponds to the time of year when families gathered in larger groups to fish during the summer months and for the fall hunt. During the 1960s, it was common for McKay youth to spend summer months out on their family’s trap line and to be taken out of school to participate in fall preparations for the winter months. While women oversaw the majority of the berry harvest planning and processing work (drying, preserving, stewing, making of jams and jellies), picking was a family affair and was often remembered as a time of laughter and good cheer.

“The Tar Island near Suncor was an important (berry) gathering area for people; there were lots of blueberries and other berries – I remember it so

clearly. In addition to fishing, we used to go duck hunting there; we would gather duck eggs. We survived on the land; we lived our life well. Today our children are lost. What is going to happen to them? Industry has not done us any good. It makes me very, very sad.”

(Fort McKay Workshop June 2009)

Values - 1960's Berry Picking

As **Figure 13** illustrates, 1960s berry picking is associated with all the cultural values represented in the Fort McKay Cultural Model. The following cultural values are directly related to berry picking in the 1960s:

- Self Reliance
- Rootedness
- Rhythm of Nature
- Cooperation
- Cohesion/bonding
- Peace

Through storytelling, sharing and traditional harvest planning/resource management activities, berry picking is indirectly related to:

- Tradition
- Caring
- Self determination
- Respect
- Purpose
- Connectedness

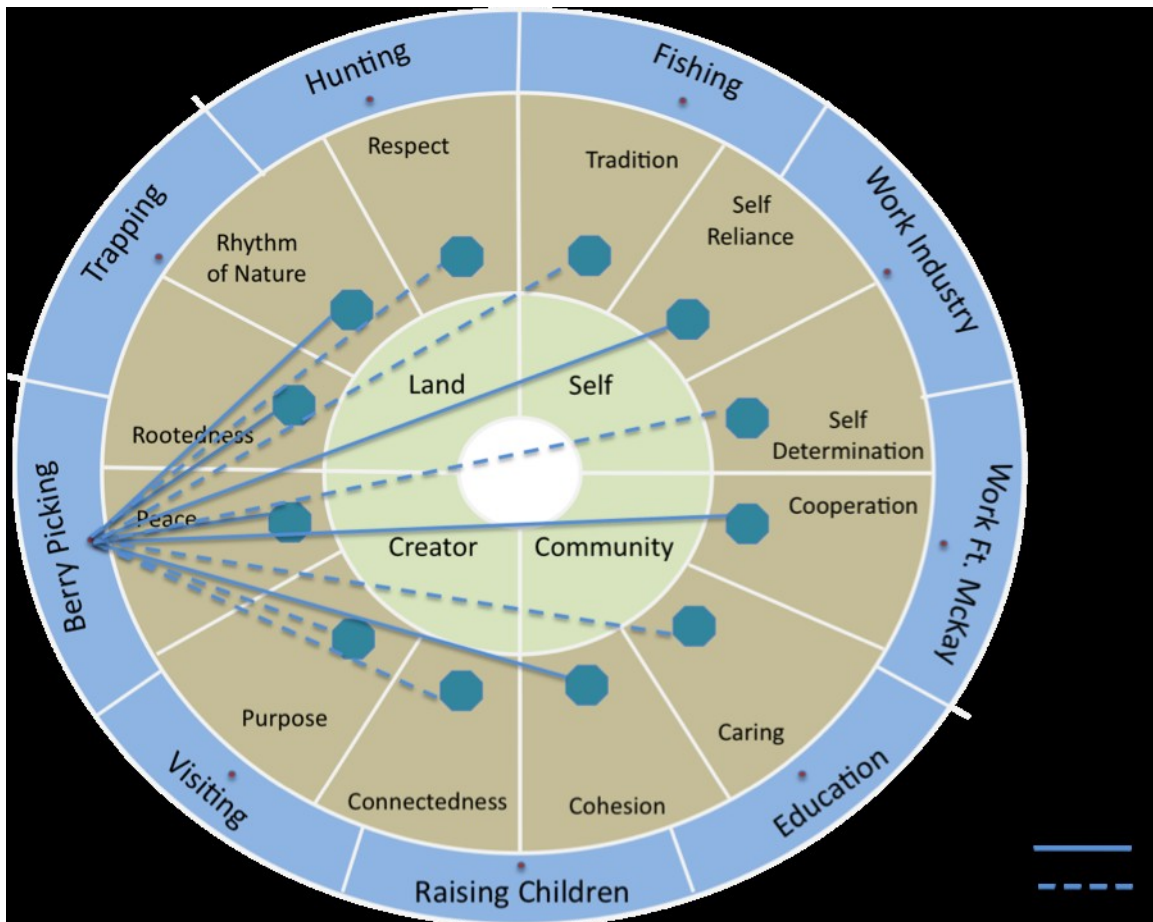


Figure 10: Berry Picking-Traditional Value Links – 1960s

- Self-reliance:** During the 1960's, berries continued to provide an important source of food and medicine throughout the year. Community members report picking large volumes of berries to eat fresh and to store over the winter (FMES 1997, Tanner et al 2001, FMFN 1994). In addition to being considered a healthy traditional food, berries and different parts of berry plants were commonly used as medicine. During the 1960s berries or berry products (jams/jellies) were also sold to non-community members or traded within the community for other goods (FMFN 1994, FMTA, 1983). Being able to provide healthy food and medicine for themselves strengthened the values of Self-reliance.
- Rootedness:** As a land-based activity, berry picking depends on a healthy ecosystem. Family berry patches were often visited year after year – and as such, people/families often formed emotional, cultural and spiritual connections to these places through symbols, myths and memories. Thus the act of berry picking connected people to specific places and “the land” in general. “Everything was taught on the land - we identify places in our language,” (Fort McKay Workshop September 2008).

- **Rhythm of Nature:** Berry harvest was one of the many traditional activities that depended on the time of year. Northern people dependant on berry harvests to supplement winter food stores are noted for their ability to interpret many of nature's signs and signals (indicators) that help them to plan berry harvests (Parlee et al 2005). Experienced berry pickers are cognizant of seasonal variability and are able to predict the effect moisture, temperature and other environmental factors will have on berry crops. The value of "Rhythm of Nature" helped Fort McKay community members decide where to go picking and how much they should harvest (FMA 2007).
- **Cooperation/Cohesion and Bonding:** In Fort McKay berry picking was a group activity carried out with friends and extended family. Berry picking was one of the earliest ways young children become contributing members of the family. Elders used the activity of berry picking to pass on stories and to teach the values of respect for the land and importance of cooperation and family cohesion.
- **Peace:** Berry picking was seen as an activity related to harmony in nature and with the people around. "Picking berries gives you a good feeling. You are looking after yourself. You have quiet time to think... It matters to me that we can't go picking. We used to have fun. There was bonding and that builds respect. It is healthy to be on the land. It is our exercise! We used to be busy," (Fort McKay Workshop September 2008).
- **Cohesion/Bonding:** Berry picking was a group activity carried out by females and males of multiple age groups. Spending time on the land together strengthened ties between family groups and helped to build respect across different age groups.

Through storytelling, sharing and traditional harvest planning/resource management activities berry picking is indirectly related to:

- **Tradition:** Berry picking links families and the community together, as individuals continue to recall berry-picking stories or the significance of their time together at traditional berry patches. Elders, aunts and uncles taught youth values by telling stories of life in the bush and their history in the region as Aboriginal people. In Aboriginal culture storytelling served as a means to share vital lessons across generations about the relationship between plants, animals, and people – as well as the importance of maintaining relations of respect and reciprocity between humans and their world. Because berries are an important traditional food and medicine, knowledge associated with the harvest, preparation and use of berries occurred out on the land during berry picking excursions.

"Kids need to listen to the Elders to learn things properly – the protocols, how to get ready, how to clean up after. They need to know their culture. When I have gatherings I try and have traditional foods – now when there are community gatherings, the people don't eat moose, fish – traditional foods.

Traditional feasts always started with fish and berries," (Fort McKay Workshop June 2009).

- **Self-determination:** Being able to plan berry harvests and, in some cases, burn areas to maintain berry patches helped to instill the value of Self-determination.
- **Caring:** The value of Caring is manifested by the act of sharing. "We would share with family and those that couldn't go out picking," (Fort McKay Workshop September 2008).
- **Respect:** Youth were taught to respect the plants by leaving offerings and limiting the volume of berries picked so as not to "over-harvest."
- **Purpose/Connectedness:** Time spent berry picking was also time spent sharing stories and learning about relationships between people and their environment, and about the spiritual links with the Creator. By collectively working to provide for the family and carefully planning to manage resources the value of purpose was instilled in the entire group. The teachings of Elders also played an important contribution.

Industrial Stressors Affecting Berry Picking

The following descriptions of industry-caused stressors are derived from local observations and the knowledge of Fort McKay community members.

Industry has changed the Land:

A regional study carried out to identify traditionally used plants in the Regional Municipality of Wood Buffalo found that the Fort McKay First Nation has experienced significant losses of plant collection areas and are often disappointed when returning to a plant collection site to find it destroyed by development (Dersch and Bush 2008:14). Many of the traditional berry gathering areas on family trap lines and along the Athabasca, Steepbank, Muskeg, Firebag, Marguerite, McKay, Dover, Ells, Pierre and Redclay creeks and Rivers have been lost or altered as a result of oil sand development.

"When Suncor arrived here; that is when everything changed. They used to cut all the trees. They killed everything when they cleared the land. There is nothing left on my line – they killed it all. I am an old trapper; I have lived here my whole life. You can't trust the oil companies; nothing good comes out of it. There is lots of things going on in the bush – we should go in the bush, not just talking about it here. When elders pass away everything will stop."

(Fort McKay Workshop June 2009)

Loss of traditional berry picking sites is not only occurring at project mine sites, but also as a result of project-related infrastructure since many roads, pipelines, power lines and work camps associated with oil sand development are built on the high sandy ridges that support productive berry habitats. Reduced water levels associated with industrial use, removal of muskeg, road construction and other industry driven water diversions are also affecting some berry habitats.

“Today all the berries dry up before they ripen. Berries grow better where they are protected in the bush.” (FMFN 1994:67)

“There used to be lots of berries – everywhere. Right here in McKay there used to be berries – blueberries, Saskatoons, cranberries.... Now – nothing.” (Fort McKay Workshop January 2009)

“Blueberries are scarce now (around McKay). All kids do now is go quadding around - kids don't have a relationship [with the land] now.” (Fort McKay Workshop September 2008)

It has become increasingly difficult for community members to find plant (and berry) collection areas that are believed to be uncontaminated and suitable for consumption (Dersch and Bush 2008:14). At the same time, many of the traditional collecting areas have been lost or are inaccessible to community members. The collecting areas for the Fort McKay people have been narrowed to a small area along the Athabasca River (considered too polluted for berry picking by many community members), major tributaries that are accessible by boat, and the Birch Mountains area, which remains relatively undeveloped.

Industry has polluted our food:

Community concerns related to emissions from oil sand upgraders, mine fleets and the dust and emissions associated with industrial vehicle use in project areas and along highways, roads and access trails has been documented in numerous EIAs (Appendix A), community reports (FMFTA 1983, FMFN 1994, BG-TEK 2003) and regional documents (Golder Associates 2002, HEG 2006a, Dersch and Bush 2008). In all of these reports, community members suggest that since the 1960s there has been a significant change in the availability and quality of berries growing throughout the territory: which they believe can be attributed to industrial pollution. While some people will pick berries locally, others in the community say that they have changed their berry picking locations and now travel hundreds of kilometres to find berries that are not “covered in white powder and black specks,” (FMES inc and AGRA. 1998:21).

“We used to pick tonnes of blueberries; we would pick lots and store them for the winter. But now there is nothing around here in this country. We get blueberries from the places where it is not so polluted. We used to have all kinds of berries: saskatoons, pincherries, and blueberries. Ever since there has been all this industry there is absolutely nothing. Nothing is growing here. It has something to do with the industrial plants. It's the pollution coming out of the stacks,” (Fort McKay Workshop June 2009).

The need to travel further distances from Fort McKay to harvest healthy berries limits berry picking opportunities for some community members who do not have the means to travel a long way on their own because of health reasons or the cost associated with purchasing a vehicle and fuel.

Industry has changed access to our traditional land:

Changes in access have affected the territory in two separate ways. First, access onto or through active project areas can be limited by oil sand development proponents for safety reasons.

“Now we need permission to go onto our trap lines.” (Fort McKay Workshop 2008)

Secondly, cut lines and industrial access roads through crown land can also open up traditional harvesting areas to recreational users. A greater number of non-community members using the land has affected berry picking for some community members.

“There are too many white people. We can’t even go berry picking; women are scared to go by themselves.” (The late Alice Boucher FMFN 1994:60)

Reliance on the wage economy has changed the way we spend our time:

The intensification of the wage and market economy and its effects on time use and patterns of consumption have also affected berry picking activities. Individuals who work at the mines don’t have as much time to spend picking berries.

Industry-related population growth has increased the level of goods and services available in Fort McMurray:

The availability of fresh fruit year-round has affected the need to store large quantities of berries. As a result, berry picking is seen as more of a recreational activity rather than a subsistence activity. Time-limited schedules, land disturbance and the increased expenses required to harvest berries have made shopping for non-traditional foods in Fort McMurray an attractive option for many working community members.

2009 Berry Picking

As Figure 11 illustrates, the following cultural values continue to be instilled through berry picking today:

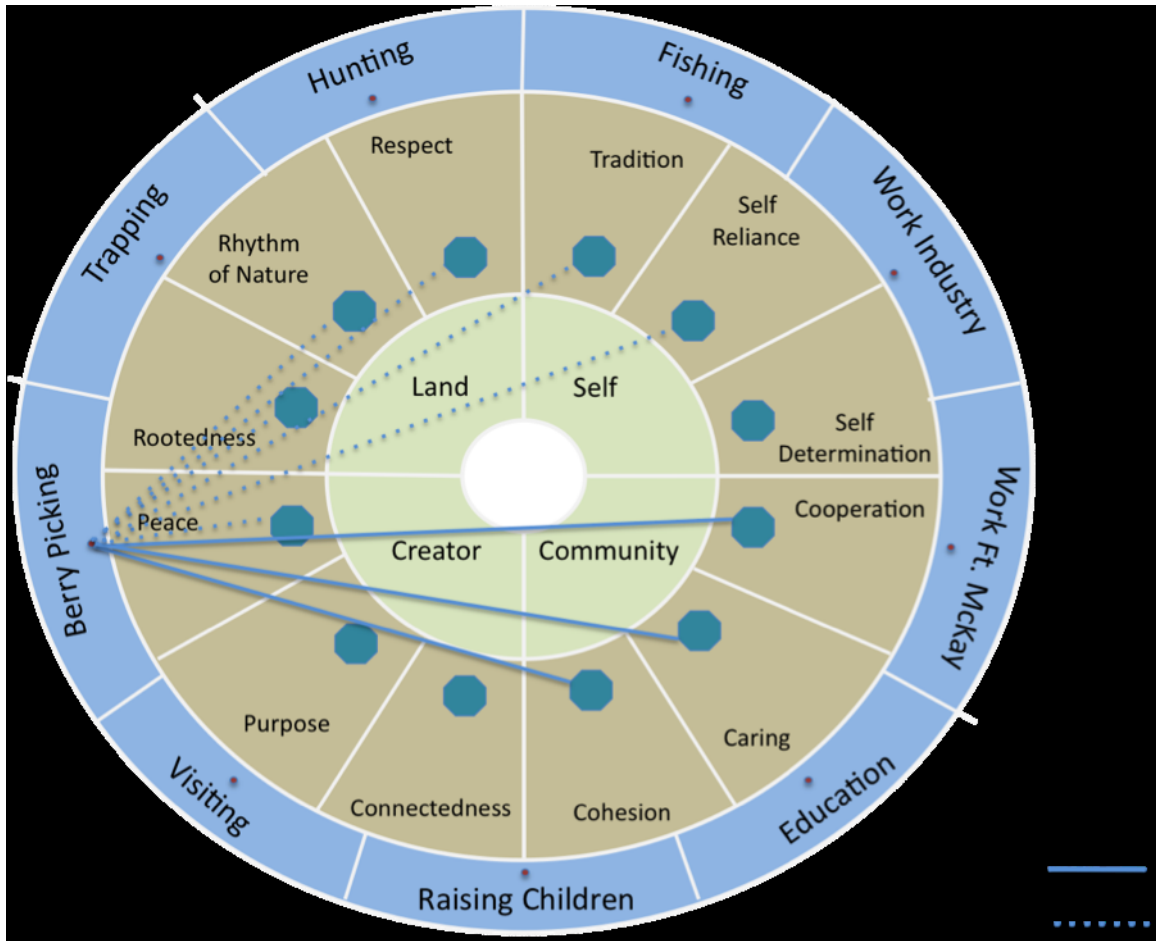


Figure 11: Berry Picking-Traditional Value Links – 2009

- Cohesion, Cooperation and Caring:** The people in Fort McKay continue to consider berry picking a healthy way to interact with family on the land and as a means to stay connected to nature, family and to their culture. Families continue to share berries (if/when large quantities are picked) especially with Elders who are too sick to go into the bush. However, without exception, community members feel that their opportunities to pick have been drastically reduced because of industry. This is attributed to the actual loss of berry patches within oil sand leases, limited access through project areas, community perceptions related to industrial pollutants and increased costs associated with travel to remote gathering areas.
- Tradition:** Community members feel that the tradition of berry picking is symbolic of Aboriginal culture – and even though berry collection is no longer considered necessary for survival, it remains an important means of sharing and passing on traditional knowledge out on the land. Participants in this study indicate that during berry picking excursions, it is common for Elders and knowledgeable adults to share stories of past experiences in the bush. These excursions also provide youth with a unique perspective on historical events that have shaped the lives of Aboriginal people living in the region.

“Kids today, all their learning is from books, its all in (their minds). Unless you learn things on the land, you can't know it from [your heart].”

(Fort McKay Workshop June 2009)

The following values related to Self have been weakened as a result of Industry:

- **Self-reliance:** The linkages to Self-reliance and Self-determination have been disrupted and changed, since fewer community members harvest berries as a subsistence activity that provides healthy country food and medicine. According to workshop participants, “Everything we had came from the land. Now we don't rely on anything on the land,” (Fort McKay Workshop 2008). “Now, if you don't have money, you don't eat,” (Fort McKay Workshop 2008).
- **Self-determination:** In terms of self-determination, community members feel powerless to stop industry clearing of traditional berry patches. Many feel that the choice to pursue traditional activities such as berry picking are out of their hands – so traditional methods of managing resources (i.e. limiting harvest in some areas or burning) are no longer relevant. It should be noted that the people in McKay attributed this to government policy that limits burning to the forestry sector – not the oil sand industry.

The values related to Land have been affected by modern day berry picking:

- **Rootedness:** The linkage between berry picking and the value of rootedness has been weakened as the economic (subsistence) role of berry picking is reduced and more land is taken up by oil sand development. Rootedness is affected because far fewer people have the opportunity to spend long periods of time out on the land, and in particular at family berry patches. Industry has affected significant tracts of traditional territory, especially those areas closest to Fort McKay. “Through concrete in cities you are isolated from mother earth.” “Everything was taught on the land. We identify places in our language,”(Fort McKay Workshop 2008).
- **Rhythm of Nature:** The linkages between berry picking and the values associated with the Rhythm of Nature have been weakened. Seasons no longer dictate the way community members spend their time nor whom they spend that time with. Work (and school) schedules require community members to spend fixed amount of time with non-community members in non-traditional roles. Berry picking is still done during specific seasons, but as work (and school) schedules occupy more time, berry picking has become a recreational activity. “[We] lived by the season: moose hunting, fishing, ducks, roe, berry harvesting. Now we live by the clock,” (Fort McKay Workshop 2008).
- **Respect:** The fact that people don't depend on berry picking for survival has also affected its ties with respect. Grocery stores in Fort McMurray provide a food source year-round and so conserving food and food sources are not as

strongly instilled. "Some food even gets wasted which leads to less respect" (Fort McKay Workshop 2008). Industry work camps are particularly noted for wasting food.

The values related to Creator have been affected by modern day berry picking.

Peace, Purpose and Connectedness: While it is common for community members to associate offerings with medicinal plants, fewer community members; in particular youth, associate offerings or specific protocols with berry picking. In general less time spent in the land and in particular harvesting foods, managing resources and collectively working in harmony with nature, the values of peace, purpose and connectedness get weaker.

Industry Effects on Berry Picking

Figure 11 summarizes the effects of Industry stressors on berry picking. The first part of the figure (1960) represents the relationship that berry picking had to values through its inputs and outputs (associated cultural tools and characteristics). As industry stressors affected the physical and social environment, inputs and outputs of berry picking have been modified, and consequently the quality and quantity of its outputs have been reduced which changes the relationship berry picking has with traditional values.

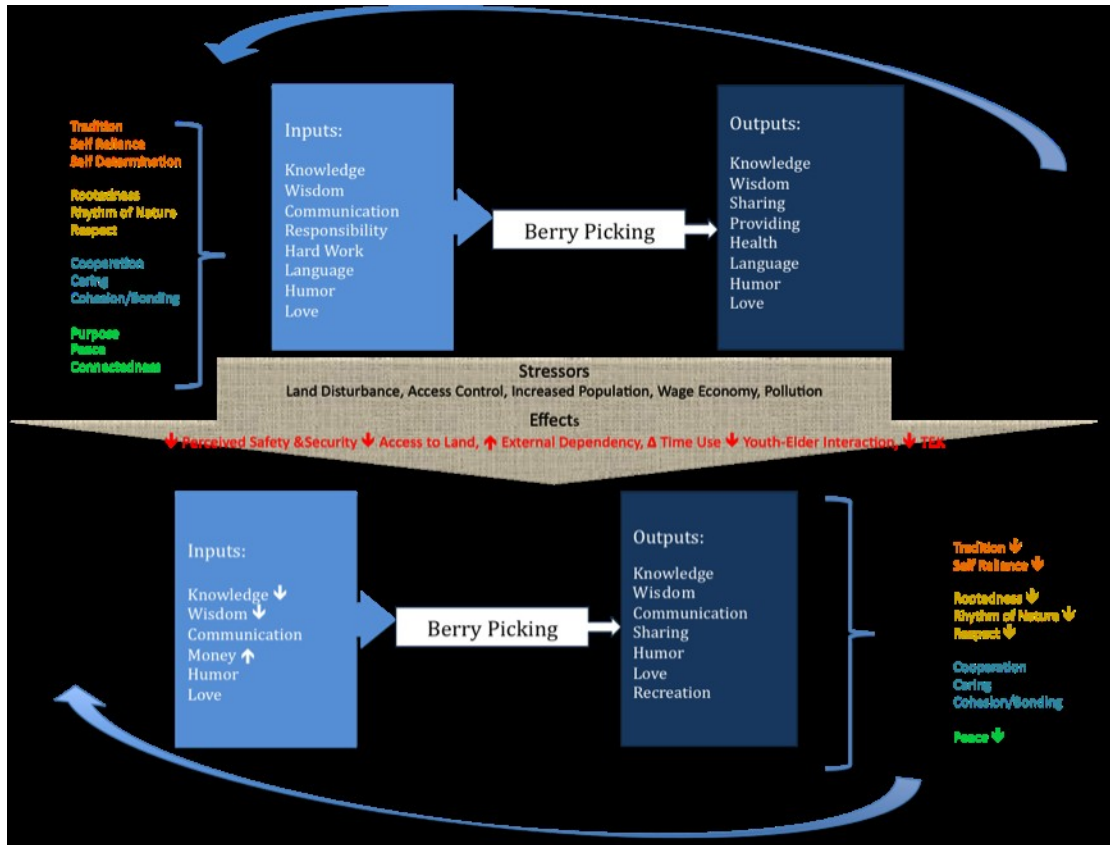


Figure 12: Industry Stressors Effects on Values Instilled through Berry Picking

4.4 Work for Fort McKay

At the time of signing Treaty 8 the Chipewyan and Cree people of the area had no formal governing structure of Chief and Councillors. Because of the wooded environment it was much more efficient for people to move in small family groups or individually rather than in large Bands. The Commissioners Laird, Ross and McKenna noted:

“None of the tribes appear to have any very definite organization. They are held together mainly by the language bond. The Chiefs and headmen are simply the most efficient hunter and trappers (Treaty 8),”

(In FMTA 1983)

It wasn't until 1949 that the Cree-Chipewyan Bands in Fort McMurray split into 2 separate Bands: one of these becoming the Fort McKay Band of Indians. In the 1960s, Fort McKay First Nation people were represented by a Chief and Council who were responsible primarily for dealing with land tenure and programs run through the Department of Indian and Northern Affairs (Housing and Health Services). The Métis people living in the settlement were represented by the Métis Association. Positions with the First Nation Chief and Council and the Métis Association were not paid.

During the 60's there was little to no participation by Fort McKay's leaders/administration in terms of regional resource or infrastructure planning. Their responsibilities focused primarily on Band membership and local community issues. Municipal governments from Fort McMurray did not work with Chief and Council or the Métis Locals – with the exception of a community representative on the Hospital board. Industry considered Fort McKay the “government's responsibility” (VanDyke 1978) and rarely did they consult the community on matters related to future development, continuing operations or accidents.

Values – 1960s Working for Fort McKay

Figure 13 shows the links of Working for Fort McKay with Core Values in the 1960s. Because the scope of what was considered “working for the Band” was relatively narrow and with in the context of a “white” administrative government, few core cultural values were instilled through this activity.

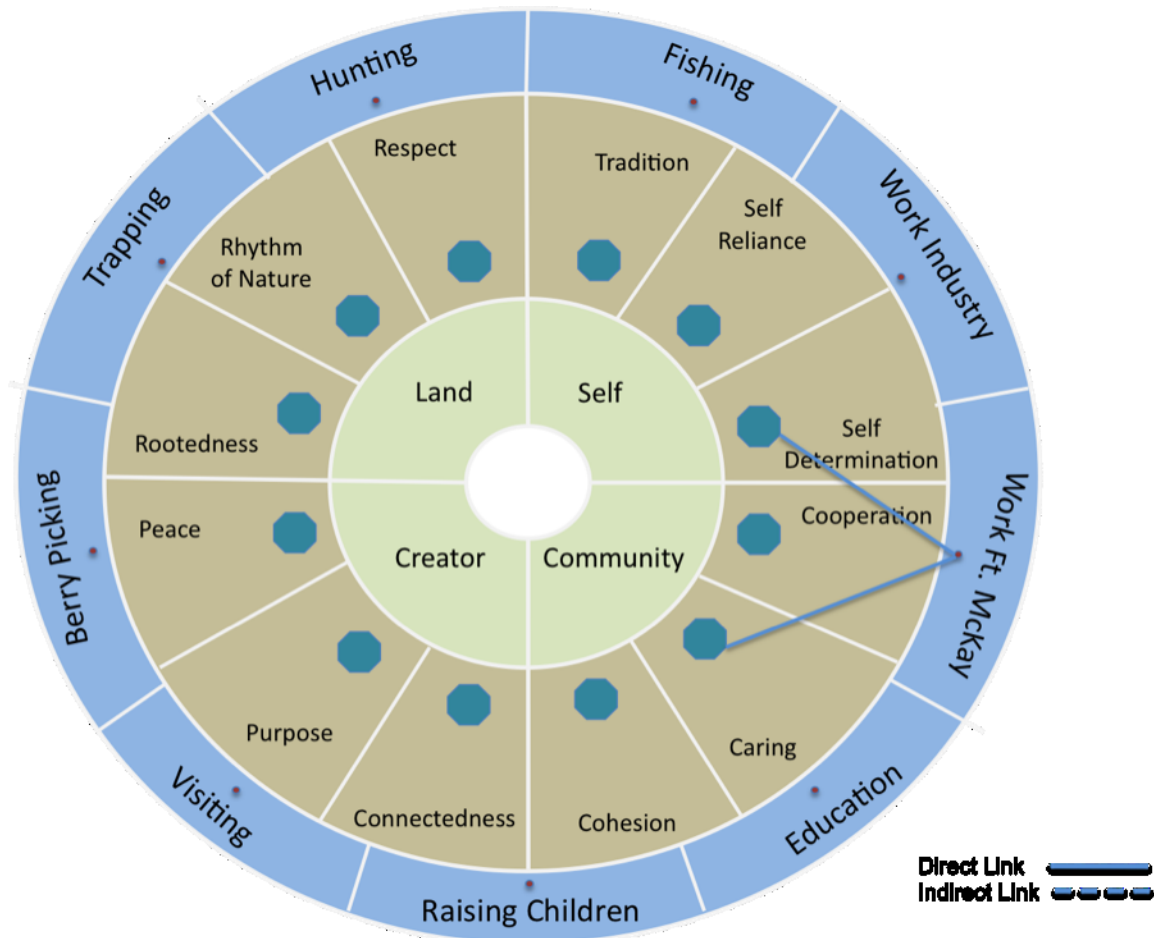


Figure 13: Working for Fort McKay-Traditional Value Links – 1960s

By working for Fort McKay in the 1960's, the following core cultural values were instilled:

- Self-determination
- Caring
- **Self-determination:** Working for the First Nation Chief and Council or the Metis Association was related to Self-determination. However, due to the limited functions of the positions the link between the activity and value were somewhat weak.
- **Caring:** As mentioned above, amongst the main activities of Chief and Council were related to health and housing programs, which have a direct link to the value of Caring for the members of the community. However, the authority of Chief and Council in this respect was subject to the Department of Indian and Northern Affairs. For this reason, the link to the value is considered to be indirect.

Industry Stressors affecting the way Fort McKay community members Work for Fort McKay.

Industry and government have required government services to grow:

Fort McKay has had to build internal capacity to keep up with the many industry and/or government-driven initiatives that have potential to affect the traditional territory and the community's collective Aboriginal rights and interests. To deal with industry and/or government business, the Band established a capable administration in the 1980s and has progressed ever since. Today the Fort McKay administration includes the following groups or organizations:

- Chief and Council
- First Nation Administration
- Métis Administration
- Work through the Industry Relations Corporation (IRC)
- Trappers Group
- Elders Advisory Group
- Community Development Team
- Community Based Environmental monitoring (fish, wildlife, plants)
- Community participation in industry studies – TEK work, TLUS for EIAs, Community TLUS, Healing the Earth Strategy, human exposure studies, country food studies, cultural heritage work, community health strategy
- TEK work for CEMA, SEWG, WBEA, TEEM
- Reclamation tours

Cultural stress caused by industry-induced shifts in societal structures and the socio-economic factors related to boom economies have required Fort McKay to build capacity in the following areas:

- Fort McKay School Board
- Health Centre
- Wellness Centre
- Fort McKay's Woman's Association
- Mothers of McKay
- Culture and Recreation Board
- Young Mom's Program
- Community Enhancement Society

Fort McKay Group of Companies and other companies owned and operated by members of the community produce financial and human capital for Fort McKay by serving the industry. Due to its direct contribution to strengthen the community capacity to generate its own resources and determine its objectives and direction, working for the Group of Companies is considered to be working for Fort McKay.

Values – 2009 Work for Fort McKay

When compared to the 1960s, the number of services provided by the local administrations has increased dramatically as a result of industrial development in the traditional territory. As Figure 14 illustrates, there has been shift in the number of core cultural values that are instilled as a result of people working for Fort McKay.

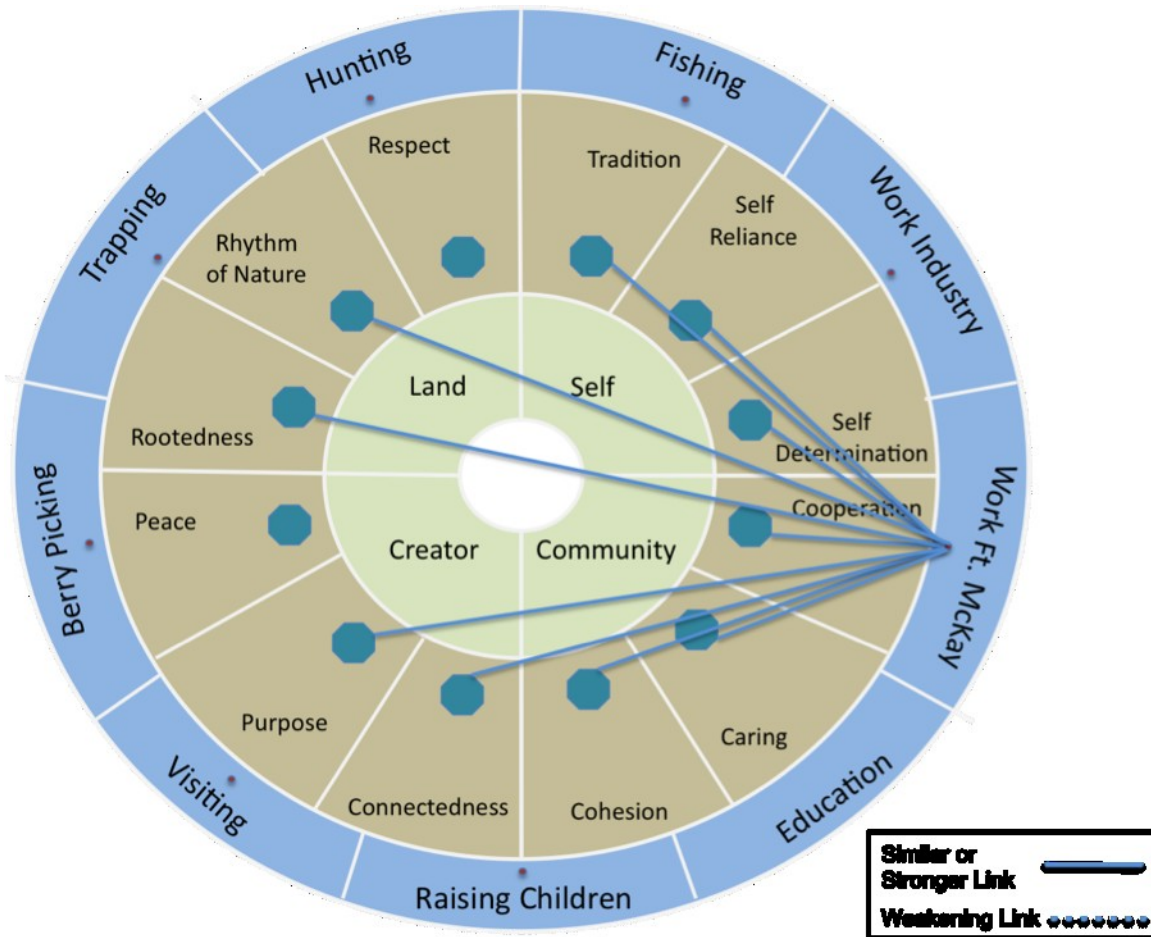


Figure 14: Working for Fort McKay-Traditional Value Links – 2009

The following core cultural values have been strengthened by current positions within the Fort McKay community administration:

- Self-determination
- Self-reliance
- Tradition
- Cohesion
- Cooperation
- Caring
- Rootedness
- Rhythm of Nature
- Purpose
- Connectedness
- **Self-determination:** Today, Fort McKay has a democratically elected Chief and four councillors. Elections are governed by the Fort McKay Custom Band Election Code. Elections are held every 4 years. McKay Métis residents were originally represented by Métis Locals: Métis Local #122 and subsequently by Métis Local #63. Métis Locals also hold democratic elections every 3 years for the positions of President, Vice President and Secretary Treasurer. The Métis

Local Executives oversee administration of programs and services available to their members and represent the interests of their membership with government and industry (*Fort McKay: A Community on the Move*). In addition to Chief and Council, Fort McKay built internal capacity to keep up with the many industry and/or government-driven initiatives that have potential to affect the traditional territory and the community's collective Aboriginal rights and interests. While Fort McKay is quite active at the provincial, regional and local government levels, the community continues to seek out ways to increase their participation in land management within the traditional territory.

- At a **provincial level** Fort McKay is actively involved with the Land Use Framework, which is developing strategies to improve land use planning decision-making in Alberta. Fort McKay leadership is working with government to develop a feasible land use plan for the entire quantum of reserve lands, reflecting community values for – and objectives related to – planning, management, development and conservation and stewardship of the Fort McKay lands in perpetuity. On behalf of the community, Fort McKay made formal a presentation to government articulating their stance on co-management (October 2008).
- The Fort McKay leadership believes that co-management of the traditional territory is the best approach to reconciling Fort McKay's land rights and interests with those of others. They are actively lobbying for mechanisms that are required to ensure fulfilment of Canada's statutory and fiduciary obligations for stewardship of Fort McKay's rights and interests related to lands and environment. Fort McKay's technical advisors participate in government technical groups that are developing the recommendations to the Regional Advisory Committees (RACs) of both the Lower Athabasca and Lower Peace Regions and the parallel Aboriginal Planning Table.
- At a **regional level** the Fort McKay IRC represents the community at a number of multi-stakeholder groups that fund research and monitoring and make environmental management recommendations related to air quality, water quality, reclamation, wildlife management, fisheries and other environmental issues. These groups include: the Cumulative Environmental Management Association (CEMA), the Wood Buffalo Environmental Association (WBEA), the Terrestrial Environmental Effects Monitoring program (TEEM), the Regional Aquatics Monitoring Program (RAMP), the Regional Issues Working Group (RIWG) and a number of sub-working groups associated with these groups.
- At a **local level** Fort McKay has been proactive in terms of developing a Fort McKay Community Plan, a Health Strategy, consultation protocols for industry and government, Traditional Land Use Studies and environmental planning documents (such as the Healing the Earth Strategy (2006)). A number of youth and community programs (described in Section 5: Raising Children) are available to help manage social and cultural issues within the community.

- **Self-reliance:** Jobs provided by the Band are funded in part with resources earned by the Band through benefit agreements with industry. Indirectly jobs are provided by industry contracting the services of companies owned by the Band and individuals. The creation of these companies is a reflection of the increased entrepreneurship capacity of Fort McKay, instilling the value of Self-reliance.
- **Tradition:** Today a significant number of Elders, hunters and trappers and other knowledge holders are hired by the IRC to participate in studies or community workshops for environmental planning purposes. Community participation in Traditional Land Use Assessments, TEK studies and projects initiated by regional working groups have become one of the primary mechanisms for using language, passing on traditional skills, knowledge and cultural practices. These studies and projects often involve participation of Elders, adults and youth, providing a space for passing down knowledge, and increasing intergenerational community **Cooperation** and **Cohesion**.
- **Caring:** In an indirect way, Working for Fort McKay is also related to the value of Caring through the implementation of a number of social programs – including those run and supported by the band through the Elders Centre, and the Wellness Centre among others.
- **Rootedness:** Much of the work, which often involves field visits, provides an opportunity to Fort McKay members to regain and strengthen their sense of place and their connection to the land. The nature of the work involves the understanding of natural cycles, increasing awareness and strengthening the value of **Rhythm of Nature**.
- **Purpose:** Working to improve the well being of the community requires commitment and a sense of responsibility that can be linked to a number of traditional values such as Caring and Cooperation. The strategic and long-term view of preserving the land and the culture for future generations is linked to the traditional value of Purpose.
- **Connectedness:** Participating in the development of environmental and social studies such as Environmental Impact Assessments, Traditional Land Use Studies, wellness studies, asset mapping among others, provide an opportunity to strengthen the traditional values of connectedness.

Industry Effects on Work for Fort McKay

Figure 15 Industry Stressors on Working for Fort McKay summarizes the effects Industry has had on the extent to which traditional values are instilled through working for Fort McKay.

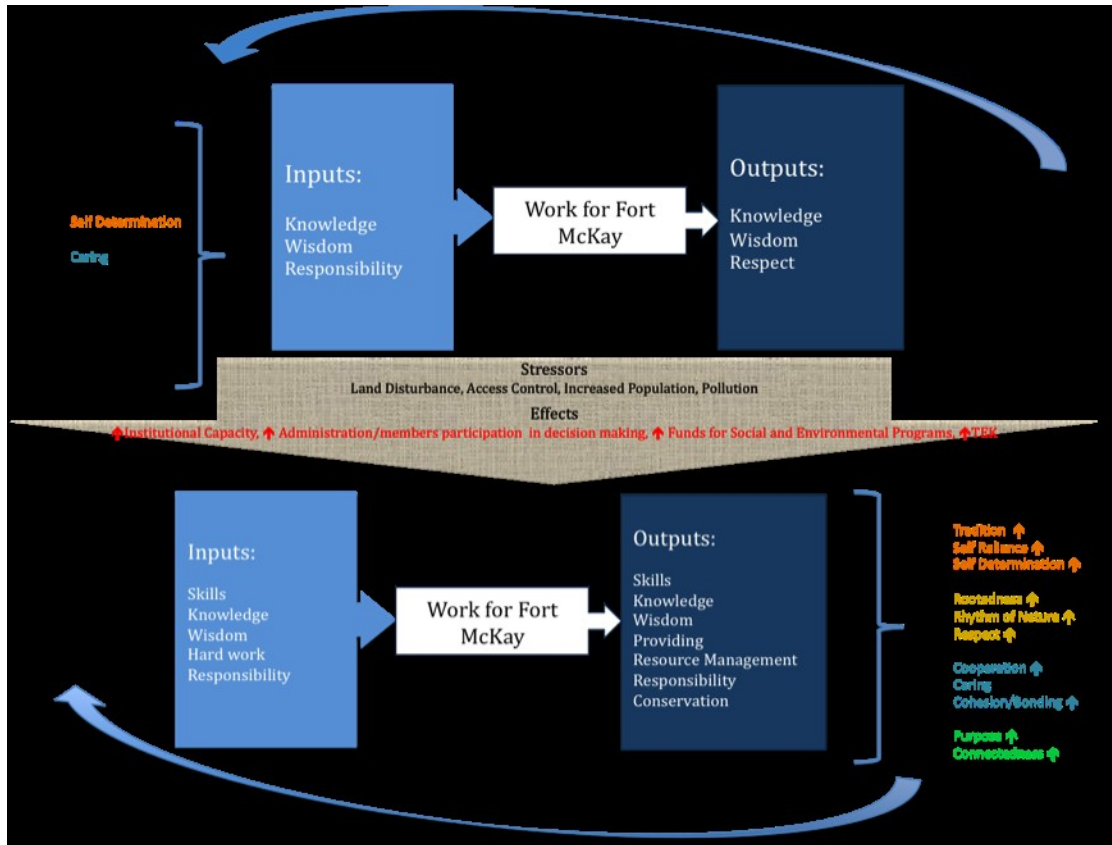


Figure 15: Industry Effects on Values Instilled through Working for Fort McKay

In general terms, the effects of industry in Fort McKay's territory and on the community's social fabric, has created the need to develop specific leadership and administrative capacities to deal with pressures of the mainstream society. Environmental regulatory requirements, recent trends of Corporate Social Responsibility and the emerging importance some companies place on maintaining good relationships with communities has affected their operations and promoted a policy of community engagement. The need to incorporate TEK in studies and resource development applications has provided the opportunity to apply, document and transfer skills and knowledge – helping to strengthen some traditional values.

4.5 Raising Children

"It depends on how you teach your kids. Before it was more a community or extended family matter."

"Families were the social unit."

"When I grew up, grandparents told us what to do and why. Now we don't have that."

(Fort McKay Community Workshop
September 2008)

In times past, Dene families were comprised of an extensive network of brothers, sisters, cousins, aunts and uncles, interrelated marriages and headed by strong matriarchal figures. Transmission of cultural knowledge occurred through everyday living as well as the rich tradition of storytelling. The interconnectedness of family members, like the interconnectedness of all life, solidified strong family values. (Coutu Hoffman-Mercredi 2002: 273).

Dene Elders participated in child rearing, parental guidance and the preparation of young people's entrance into the adult world (Coutu Hoffman-Mercredi 2002: 58).

During the 1960s the majority of the women stayed with their children in Fort McKay during the school year, while men travelled between McKay and trap lines to work in the bush. Elders shared their role as teachers. However, during the 1960s families continued to work as a unit during the summer months, spring hunt, fall hunt and dry meat seasons. This connection to traditional activities provided the means for core cultural values to be passed on to the younger generation.

Values -1960s Raising Children

The way in which children are raised provides the cultural basis of the individual, so it has a link to most community values. The community identified the following values as being related to raising children in the 1960s:

- Tradition
- Respect
- Rootedness
- Cooperation
- Caring
- Cohesion/Bonding
- Purpose
- Connectedness

These values are also connected indirectly to raising children through complementary activities such as Storytelling and Sharing.

Figure 16 illustrates the association of the activity of raising children to the core cultural values of Fort McKay culture in the 1960s:

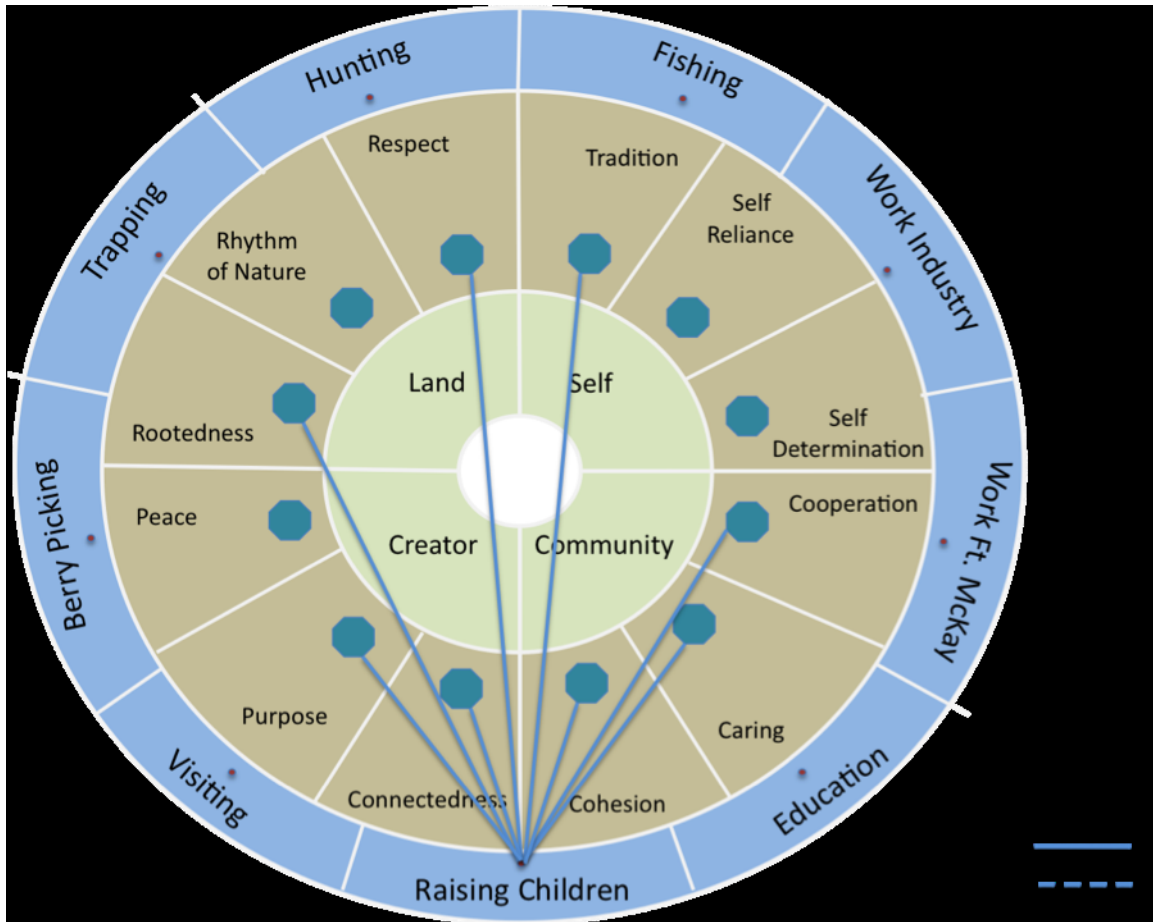


Figure 16: Raising Children-Traditional Value Links – 1960s

By Raising Children community members fulfilled the role of transferring knowledge to younger generations, which relates to values identified in the cultural component of Self:

- Tradition:** The Self cultural component is the basis of Identity. Identity is a vital part of culture. As we raise our children, cultural characteristics are transferred to the younger generations, giving continuity to the culture. “Identity, self-esteem, purpose to live and you need to pass that to your kids, for when industry goes,” (Fort McKay Focus group 2009).

Raising Children was a primary way to transfer Language, which is another important cultural characteristic, related to a number of values: “Language’s our identity-our heritage-our way of distinguishing ourselves from others”. “The language you speak tells us who we are... Need to keep the traditions alive. If they [youth] can’t understand you, they can’t learn,” (Fort McKay Workshop 2008).

Raising Children is primarily linked to values related to Community:

- **Cohesion:** When parents, grandparents and extended family spent time looking after and supervising children, values related to community cohesion/bonding are instilled. "In native language everybody was "grandfather" or "aunt" so everybody had some authority to teach and care for children."(Fort McKay Focus Group January 2009). Traditional approaches supported by the mixed economy enabled bonding between generations. "Kids had more time with parents in the past, to bond with parents, respect, and they knew how to listen," (Fort McKay Focus Group January 2009).
- **Cooperation and Caring:** Raising Children is directly and indirectly associated with values of cooperation and caring: "Everybody would take care of all the kids," (Fort McKay Focus group 2009).

As a culture with a strong relationship with the Land, values of Rootedness and Respect were associated to Raising Children:

- **Rootedness:** "Living on the land is instilled when you are young. It is the way I was raised. At six years old, alone in the trails, I was not afraid. I had a sense of peace," (Fort McKay Workshop 2008)
- **Respect:** "There was bonding [while doing activities in the land] and that builds respect." "When I grew up, grandparents told us what to do and why. Now we don't have that... Kids had more time with parents in the past, to bond with parents, respect, and they knew how to listen," (Fort McKay Focus Group 2009).

Values related to spirituality, ancestors and the Creator were also connected to Raising Children:

- **Purpose:** Transferring knowledge, traditions and the culture to our children in general fulfils an important aspect of purpose of individuals. Passing down spirituality and the connection to ancestors embedded in tradition is a duty and an honour. "Identity, self-esteem, purpose to live... you need to pass that to your kids," (Fort McKay Workshop September 2008)
- **Connectedness:** The activity of Raising Children is in itself for Dene culture an activity that is connected to nature, community and ancestors: "The shining water that moves in the streams and rivers is not just water but the blood of our ancestors... The water's murmur is the voice of my father's father. The rivers are our brothers. They quench our thirst. They carry our canoes and feed our children... The wind also gives our children the spirit of life... Will you teach our children what we have taught our children that the earth is our mother?" (Campbell J. 1988: 34,35 in Coutu et al 2002).

Industry Stressors Affecting the Way Children are Raised in Fort McKay

Industry has affected the cost of living:

Due to the non-native population explosion in Fort McMurray, the cost of living has increased dramatically. With limited hunting opportunities and bills to pay, people from Fort McKay seek out high paying jobs.

“Now-a-days both parents have to work to pay for bills, rent. Kids are left alone or with babysitters.”

(Fort McKay Workshop 2008)

“Because Parents have to work, kids are left at home. People used to raise their own children.”

(Fort McKay Workshop 2008)

“Parenting has changed a lot since the 1960s; the men would go out trapping and fishing and the women would stay home and teach the children. Every one had chores to do in the house. My Mom was not out there working to survive – that was my dad’s work. She worked at home. Now-a-days, children don’t listen; they don’t know because they were not taught from when they were small – the mom is not at home. That is the problem.”

(Fort McKay Workshop June 2009)

Loss of land and reliance on the wage economy has changed the way we spend our time and who we spend our time with:

The rapid increase of mine and insitu developments that take up lands around Fort McKay has decreased the opportunities for young people to be exposed to traditional pursuits. Today many community members rely on full-time jobs to support their families. As more community members transition from seasonal labour and a mixed economy to year-round full-time positions with a company (in particular those that do shift work) finding time to spend with children, spouses and extended family becomes more difficult. Oil sand mines operate twenty-four hours a day year-round, and many offer attractive incentives (overtime pay) for employees willing to work overtime and during the holidays.

“Residential schools took kids away, industry and the western economy is taking parents away.”

“Mealtimes – this used to be important, we would eat together and share stories; we would spend time together and give thanks. Now we don’t eat together, don’t spend time together – not even on special holidays (because you can get double-time). Now everyone has their own jobs, their own timing. Everyone just worries about themselves.”

“Now-everyone has their own time lines, their own jobs, you do it for yourself instead of for your ‘family’ (implied extended family).”

(Fort McKay Workshop 2008)

The new reliance on the wage economy has also increased the need for youth to stay in school. Elders are no longer able to fulfil the role as primary teachers and more and more young people look to individuals from outside the community for skills and knowledge that will prepare them for their adult life. It is not common for Elders or cultural advisors to participate the classrooms in Fort McKay; nor is there a locally assessable patch of land that has been set aside for educational purpose of passing on traditional skills and knowledge. Many community members feel that regular exposure to traditional teachings should be incorporated into the curriculum for McKay students. Maintaining equal community access to healthy land is key to the successful transfer of traditional skills and knowledge.

To meet industry and community requirements for non-labouring positions, students must complete high school and attend post-secondary institutions. The amount of time and commitment required to be successful in an academic setting limits the time youth can spend out on the land and the time they spend learning from Elders. This is further compounded, since Fort McKay students often attend high school in Fort McMurray and must catch the bus early in the morning. These students don't get home until early evening.

“Parents send kids to school - some parents don't even get up to send kids to school.”

“Kids are invited to the Elder gathering, but hardly any youth were there because the parents didn't want to pull the kids out of school for a day.”

(Fort McKay Workshop September 2008)

Industry has increased access to drugs and alcohol:

The paved road, increased cash, the increased numbers on non-Aboriginal people living in work camps close to Fort McKay and other socio-economic factors associated with a boom-economy have increased access to illegal drugs and alcohol. Parents dealing with their own issues have a hard time raising healthy children.

“Now we go to Safeway, the liquor store, the drug dealer, whatever, but we don't go back to our culture.”

“Parents feel guilty for leaving their kids at home so they buy them stuff (toys, goods, etc.) Things 'we' didn't have when we were growing up.”

“Women used to look after their children; now kids don't listen to their parents.”

(Fort McKay Workshop September 2008)

2009 Raising Children

Community leadership and administration has recognized some of the many challenges facing Fort McKay parents today. In the last few years a number of programs have been initiated to help parents cope with these challenges. For example, the following Fort McKay youth programs are offered through the Wellness Centre:

- Children's After School Programs: These provide recreational games, gym activities, athletic development, homework assistance, board games, arts and crafts and baking classes.
- Supper Program: Youth learn participation in meal preparation. The program teaches kitchen safety, proper food handling procedures and the cooking of healthy meals. It enhances team building, communication and social skills – while providing proper nourishment.
- Supervised Youth Nights: This includes structured programming such as recreational games, gym activities, athletic development, board games, arts and crafts, baking, personal management development, role modelling.
- Youth Leadership Program: This provides recreational and leisure opportunities that support the development of leadership skills for all in-school youth between the ages of 12 and 18 years.
- Cultural Programs: These programs involve community members and Elders to teach the children and youth of their community – and help pass on the cultures, heritage and traditions.
- Summer Day Camp Programs: Such as YMCA pre -teen and teen nights.
- The administration also supports “the Mothers of McKay”, and the “Young Mom's Program”.

Through these programs, Fort McKay role models continue to instil some traditional values, but with modest effectiveness. These programs cannot replace the daily influence of Elders and parents in expressing cultural values through traditional role modelling, since many of the programs are coordinated, managed and implemented by non-native personnel and with a western approach. The involvement of Elders in cultural programs is an important step in the right direction to strengthen traditional values.

Still many community members feel much more needs to be done to keep youth from getting caught up in a world of drug and alcohol abuse. Many feel that the disconnection between youth, their parents and the Elders is the root cause for negative behaviour of their youth. **Figure 17** illustrates the present day connections between the activity of Raising Children and the core values:

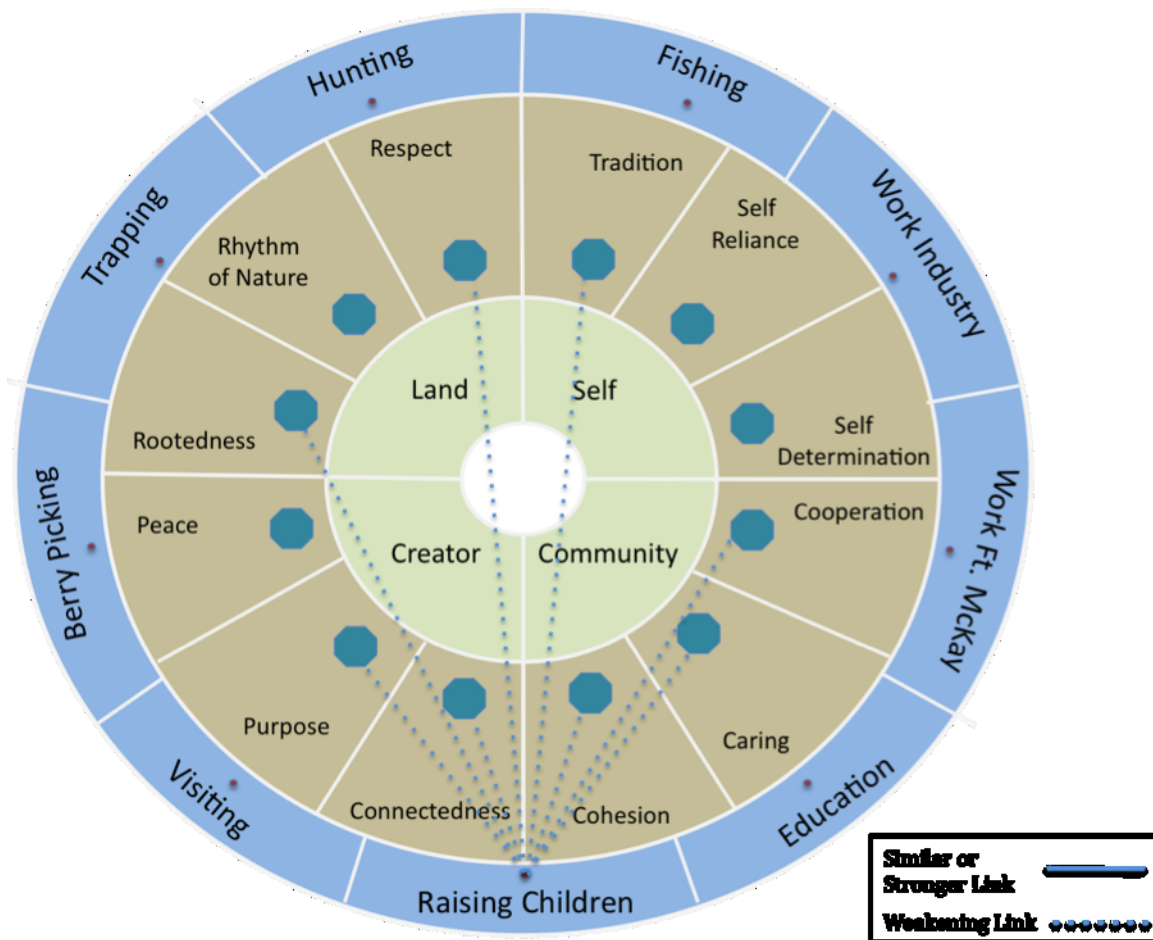


Figure 17: Raising Children-Traditional Value Links – 2009

In general terms, the link between Raising Children and all core cultural values has been weakened due to the change of social organization caused by change of life style (loss of access to land and intensification of community member's participation on the wage economy).

- Tradition:** "Family members are responsible to teach traditional ways. This is not happening because to live now two parents need to work to get enough money. Because they are working, the parents don't know, and kids can't speak to their grandparents," (Fort McKay workshop 2008). As stated above, an important part of the traditional way of Raising Children was transferring of the knowledge, language and values in general. The loss of language is related to the loss of tradition: "Industry is taking away the language indirectly because parent's jobs don't allow them to spend as much time with kids." "Industry is taking the family structure apart," (Fort McKay Focus group 2009). "Need language to keep the traditions alive. If they can't understand you, they can't learn," (Fort McKay workshop 2008).

- **Cohesion/Bonding** and **Cooperation**: Cohesion/Bonding has changed considerably as intergenerational relationships weaken due to the reduction of time and cooperation between community members: “Kids used to do chores after school and now kids go to the Wellness Centre after school and do field trips and stay with friends.” There have been some community programs established to increase positive relationships among youth, but these programs do not always allow for elder and youth interaction. “The Wellness Centre is good for bonding,” (Fort McKay workshop 2008).
- **Care**: The way people care for others, especially children has also been changed considerably: “Parents feel guilty for leaving their kids at home so they buy them stuff...” (Fort McKay workshop 2008).
- **Respect** and **Rootedness**: The community believes that the loss of traditional social structure and way of life, and therefore the modification of the way the community raises their children, has reduce the link to the values of respect and rootedness. “Kids had more time with parents in the past, to bond with parents, respect, and they know to listen.” “Kids often don’t know how to respect within the community.” “Respect for those dying and sickness are decreasing, maybe due in part to the rising number of people sick and dying at younger ages,”(Fort McKay Workshop 2008).
- **Purpose** and **Connectedness**: The link between Raising Children and the spiritual values have also been eroded: “We would spend time together and give thanks. Now we don’t eat together, don’t spend time together – not even on special holidays because you can get double-time...” (Fort McKay Workshop 2008).

Industry Effects on Raising Children

Without the direct and constant involvement of parents, Elders and extended family in the activity of Raising Children, the inputs and outputs of the activity and its links with all core values has been weakened. **Figure 18 summarizes** the effects of Industry stressors in the activity of Raising Children. In the second part of the figure, the values of Rootedness and Connectedness are not mentioned because the current association of Raising Children and those values is virtually nonexistent. This is a direct result of the difficulty community members have in finding intact, accessible lands that support year-round opportunities for youth and Elders to work together carrying out traditional pursuits. The existing feeble link between Land and Creator-related values persists due to the community efforts to develop cultural programs and the few opportunities that families have to spend time together in the land (berry picking, Moose Lake excursions).

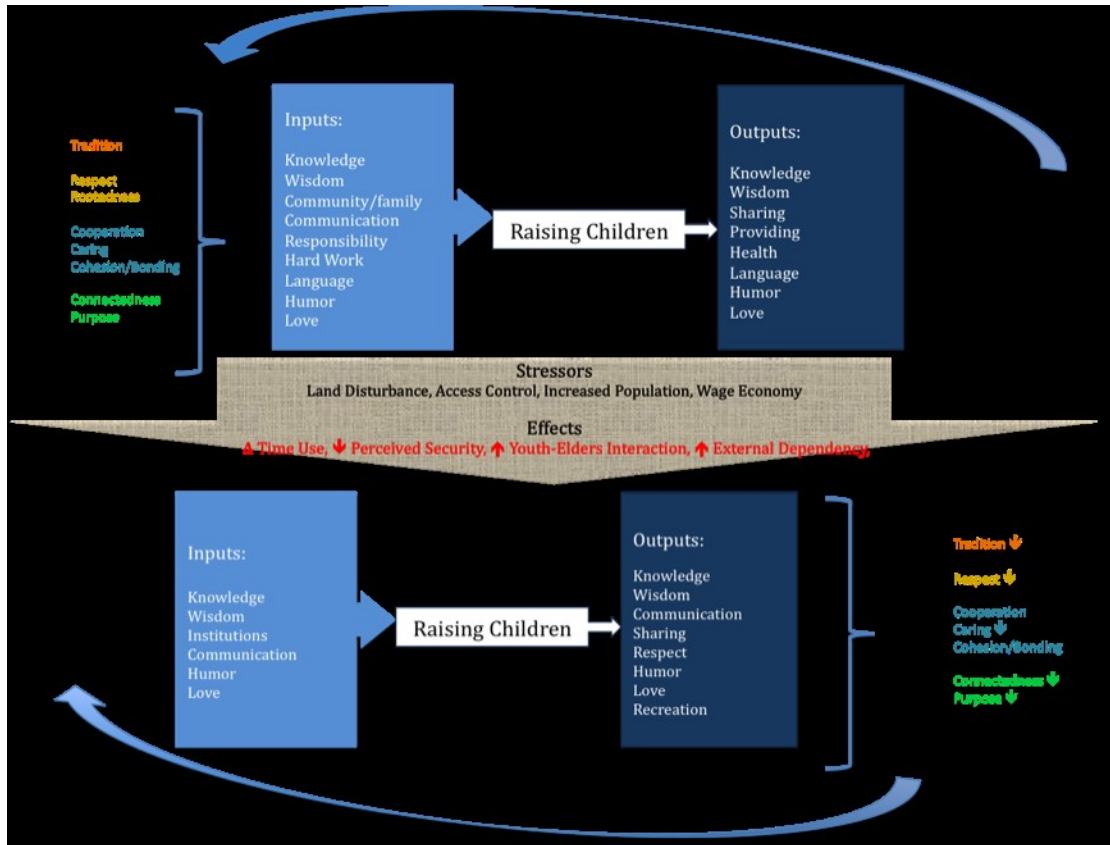


Figure 18: Industry Stressors Effects on Values Instilled through Raising Children

4.6 Working for Industry – 1960s

Survival in the sub-Arctic climate of traditional Dene territories required a great deal of communication, cooperation and commitments toward the common good. Dene peoples created strong communal societies composed of large extended families that worked together as a socio-economic unit. Everyone from the smallest child to the oldest grandmother contributed to the group's survival (Coutu Hoffman-Mercredi 2002: 58). Similar to all the people of Fort McKay (Dene, Cree, and Métis) historically "Labour was not divided into highly specialized categories to be offered for sale on an open market as is the [wage economic] system," (Van Dyke et al. 1978: 55). The subsistence lifestyle and an extended kinship network provided secure work for everyone (young and old), food and income, maintenance of traditional values such as sharing and respect for man and nature as well as ample leisure time to enjoy the environment in which they lived. This included chances to hold tea dances, spiritual ceremonies and to provide Elders with opportunities to pass oral history, the traditions, the culture and the experiences of a lifetime of learning. (FMTA 1983:34).

"In the Old days it was important to be together; live together; work together."

“It was a hard working life and the family was there for you.”

“Working together, everyone had a job, a sense of responsibility.”

(Fort McKay Community Workshop September 2008)

“Traditionally, the principles underlying economic transactions for residents of Fort McKay was one of reciprocity. When food, shelter and so on were available to an individual, one had an obligation to distribute these goods in a prescribed manner within one's own kin group. Conversely, when one's kin had goods available, one had a claim to a set portion. The kinship system indicated to the individual those persons to whom one had economic obligations, as well as those from whom one might receive economic privileges. Reciprocity was activated and operated through the kinship system,” (Van Dyke et al. 1978: 56). The traditional system had the effect of equalizing wealth so that no one individual had abundance while others were in need.

As community residency shifted from being semi-nomadic to being semi-sedentary during the 1960s, many people began to carry out hunting from a single base camp – Fort McKay (FMTA 1983:88). Increased development and contact with the western culture augmented residents of Fort McKay participation in the wage-based economic system through occasional and seasonal wage labour. “We were reasonably successful in dealing with the effect of the fur trade era. We have kept these within reasonable bounds given the circumstances. We have also been reasonably successful in incorporating fur for sale and even wage labour within our Indian economy without jeopardizing its very survival,” (FMTA 1983: 21 & 33). During the 1960s, seasonal wage labour included forestry, fire fighting, work for Great Canadian Oil Sands (GCOS) and Abasand Oil Limited.

“Syncrude/Suncor was initially of help to the community through employment. Things were good then. But the new companies are really locking things up; access, hunting, trapping, even getting to reserve at Moose lake... Long waits and gates to cross lease areas...”

(Fort McKay Focus Group January 2009)

Values - 1960's Work for Industry:

As Figure 19 illustrates, the 1960s connections between cultural values and working for industry.

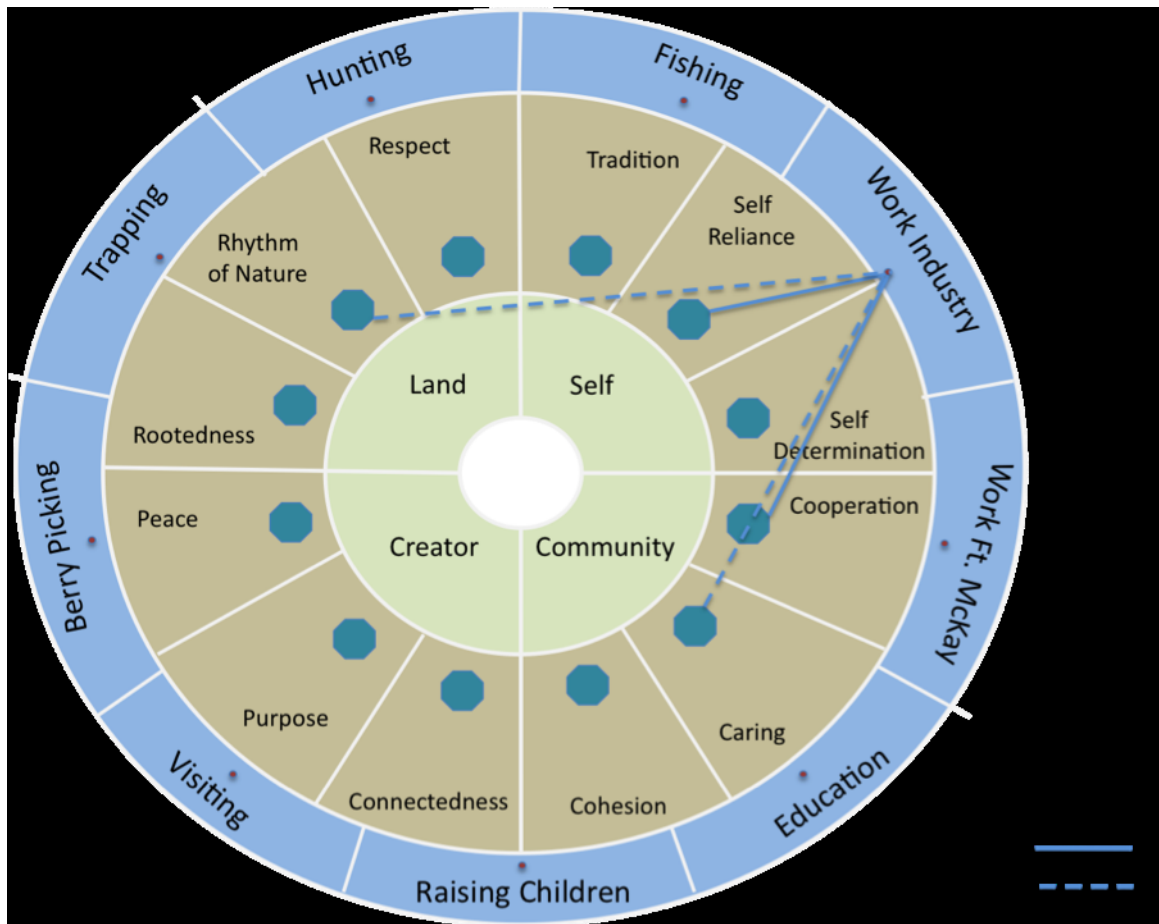


Figure 19: Work for Industry-Traditional Value Links – 1960s

- Self-reliance:** Work for industry in the 1960s was complementary; it helped supplement the family economy. The community economy was still very much centred on traditional land-based activities such as hunting, fishing, gathering and trapping. The financial resources obtained through seasonal industry work were in part used to acquire goods, tools and supplies to better perform traditional activities. In that sense, it complemented their ability to use their traditional-land based economy without compromising their ability to be self sufficient or dependent on outside resources to make a living.
- Rhythm of Nature:** In the 1960s working for industry contributed to or allowed the core values related to land to be strong in the community. The fact that Work of Industry was a complementary activity that was carried out on a seasonal basis allowed community members to continue to live in seasonal rounds supporting the value of Rhythm of Nature.
- Cooperation and Caring:** Again, the non-dominant, seasonal and complementary nature of industry work in the 1960's strengthened community-based values. A number of community members would work for industry while others would continue to carry out traditional activities in the

family, allowing each member to cooperate with the economic wellbeing of the group as a whole. Seasonal work provided members with additional economic resources to better take care of the family.

Industry Stressors Affecting the Need for Fort McKay People to Work for Industry

Environmental and social effects resulting from oil sand development within Fort McKay's traditional territory has been well documented in numerous Environmental Impact Assessments (EIAs), community reports, and regional research projects (Appendix A). The following descriptions of oil sand industry stressors are derived from local observations and the knowledge of Fort McKay community members.

Industry has changed the land:

In the early 1980s, the Fort McKay Tribal Administration stated, "It is impossible for us to continue to withdraw and still have enough land to serve as an economic base for us in the ways that we choose. This is particularly clear in the case of the trap lines," (FMTA 1983: 34). Since that time, there has been a dramatic increase in oil sand development within Fort McKay's core traditional territory. People from Fort McKay can no longer use the land around the settlement to support themselves. A land use survey conducted by the FMFN IRC in 2000 found that more than 50% of the community wanted to carry out traditional land use activities, but less than 50% saw themselves as being able to do so. The only traditional activity that the majority of people foresaw themselves being able to do was to take part in gatherings (FMFN 2000). The inability to harvest traditional foods has increased the need to work for wages and to buy food and other basic necessities in Fort McMurray.

Population increase in the region driven by Industry has increased the cost of living:

The intensification of the wage and market economy and the increase in population have both had an effect on the cost of living in the region. With limited hunting opportunities and bills to pay, people from Fort McKay seek out high earning jobs.

"Now-a-days both parents have to work to pay for bills, rent. Kids are left alone or with babysitters."

(Fort McKay Workshop 2008)

Reliance on the wage economy has changed the way we spend our time and who we spend our time with:

More community members are relying on full time jobs to support their families. These jobs tend to be year-round, full-time employment with industry as opposed to seasonal jobs. As more community members take on jobs with industry, in

particular those that do shift work, finding time to spend with children, spouses and extended family becomes more difficult. Oil sand mines operate twenty-four hours a day year-round, and many offer attractive incentives (overtime pay) for employees willing to work overtime and during the holidays.

“Mealtimes – this used to be important, we would eat together and share stories. We would spend time together and give thanks. Now we don’t eat together, don’t spend time together – not even on special holidays (because you can get double-time). Now everyone has their own jobs, their own timing. Everyone just worries about themselves.”

“Now-everyone has their own timelines, their own jobs; you do it for yourself instead of for your ‘family’ (implied extended family).”

(Fort McKay Workshop 2008)

Working for industry prevents people from passing down traditional values. As more people spend time at work, there is less opportunity for youth to spend time with Elders and their parents, in particular, opportunities to spend time on the land. This has affected the intergenerational transfer of core cultural values. Within Fort McKay, values are changing with a new emphasis upon materialism being in the forefront of change as has been the case in hundreds of other situations of culture contact in North America and around the world (Van Dyke et al. 1978). *In terms of the benefits, the overwhelming consensus is that, “The only real benefit of working is money,”* (Fort McKay Workshop 2008).

“There are no family values. All we care about is getting that dollar. Yet there are people that can’t work. Without money you can’t eat, go anywhere.”

(Fort McKay Workshop September 2008)

Individuals with full-time jobs don’t have as much time to carry out traditional activities or to develop traditional skills. Often trips to the bush are carried out on the weekend or during vacation, and are reliant on family and friends who have trap lines within reasonable travel distance from Fort McKay.

Intensification of the wage and market economy has changed patterns of consumption and way of life:

Time-limited schedules, land disturbance and access to shopping in Fort McMurray have made shopping for non-traditional and often less healthy foods an attractive option for many working community members. Fewer people rely on traditional foods for survival, as there is an increasing consumption of pre-packaged and industrially processed food.

“In our time if we didn’t hunt or fish we didn’t eat. That wasn’t a nine-to-five job. Everything you did in the day... there was no day off.”

“Now people don’t take the time.”

“We used to live off the land. People were healthy. Now we eat from the store... eating beef and pork makes Indians sick.”

“Now we go to Safeway, the liquor store, the drug dealer (whatever) but we don't go back to our culture.”

“Everything we had came from the land. Now we don't rely on anything on the land.”

(Fort McKay Workshop 2008)

The population increase in Fort McMurray has also increased the variety of goods and services available to community members. All the newest fads and modern conveniences are available in Fort McMurray or via the Internet. Television and exposure to non-Aboriginal people in Fort McMurray have increased the demand for material goods within the community.

“Parents feel guilty for leaving their kids at home so they buy them stuff (toys, goodies etc.). Things “we” didn't have when we were growing up.”

(Fort McKay Workshop 2008)

Values – 2009 Work for Industry

Today, many Fort McKay community members actively pursue economic and business opportunities to ensure their future financial and economic independence (FMFN website 2006). The desire for superior technology and amenities (in the broader sense) and for acquiring the purchasing power to obtain this technology is probably the single most compelling factor motivating change from within the community (Van Dyke et al. 1978). There is less than 10% unemployment in Fort McKay.

Figure 20 illustrates the traditional values that are instilled in Fort McKay through in a wage-based economy as opposed to the mixed economy that prevailed in the 1960's.

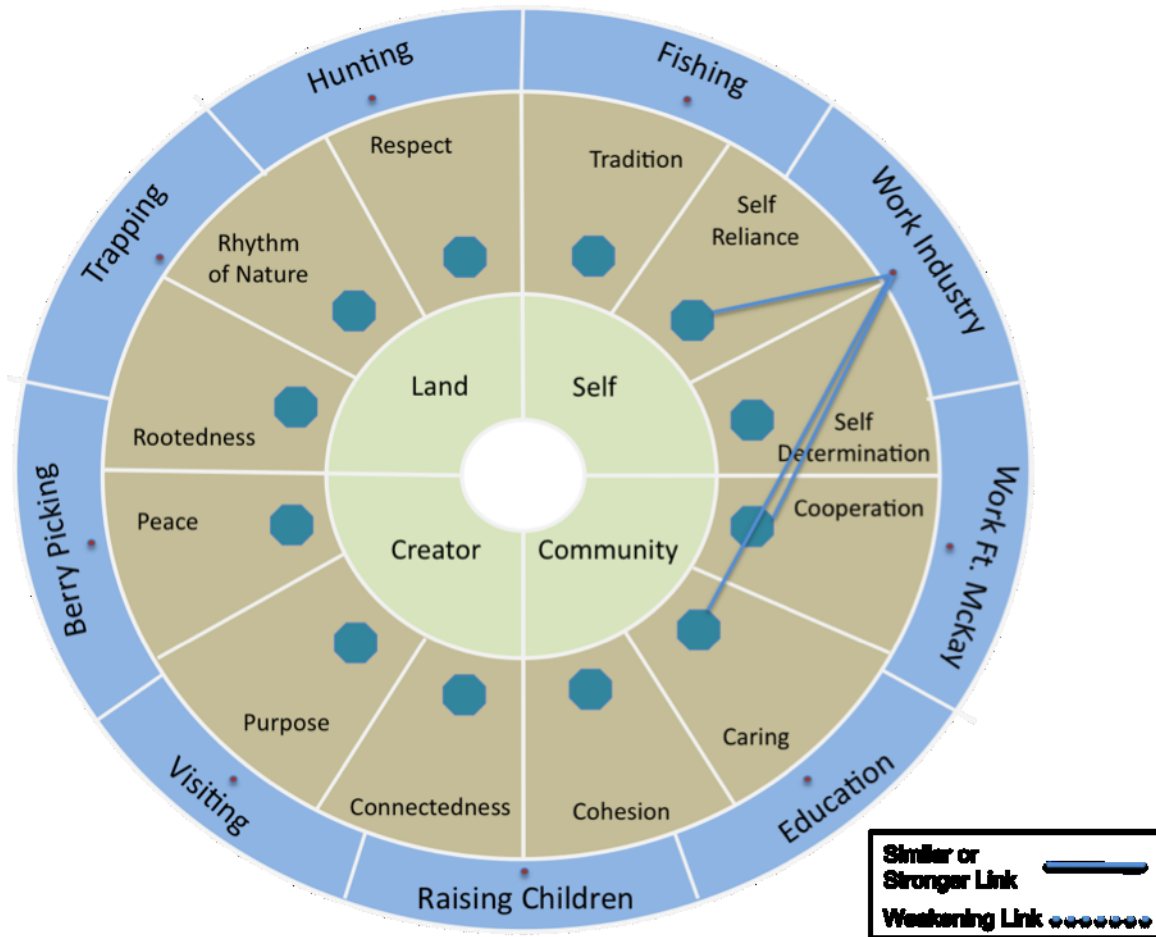


Figure 20: Work for Industry-Traditional Value Links – 2009

When community members work solely for industry it affects cultural values in Fort McKay not only through the activity itself, but also due to the fact that it has affected the way many individuals perform more traditional activities (such as hunting and fishing). For example; having money allows people to buy gas and drive to harvesting locations as opposed to walking to these places. In this sense, Working for Industry has affected all the community's traditional values in one way or another. The following core cultural values have been affected directly by stressors related to Work with Industry.

- Working for Industry allows very little flexibility to conduct traditional activities on the land, especially following the seasonal rounds. It does not instill Land values such as **Rhythm of Nature** or **Rootedness**. Furthermore, it reduces the time and ability of community members to be in close contact with the land in a meaningful way. As such no link to these values is shown for 2009 "Work for Industry".
- **Self-reliance:** Working for industry has an element of Self-reliance, as people work hard to obtain the funds that they need to live in the new economy. However, the idea behind Self-reliance has changed in the current context:

“Now-everyone has their own timelines, their own jobs; you do it for yourself instead of for your family [implied extended family]”. (Fort McKay Work Shop September 2008). Through self-employment and entrepreneurship, and with work in the Fort McKay group of industries, certain members of the community have been able to maintain and increase their independence and self-reliance by controlling their income and time.

- Working for industry in the context of Fort McKay instils values of **Cooperation** and **Caring**. However these values have also varied from their traditional form: In a wage-based economy, principles of distribution are based upon a “market economy” rather than upon reciprocity. The distribution system of the larger society is structured to allow individuals to excel and to accumulate wealth (Van Dyke et al. 1978). Having to rely on purchased food, goods and services that come from Fort McMurray has affected the way people share. In the past, families worked together to harvest meat so everyone would have food. Money is not distributed the same way. Community members described how they make good money working for industry. This allows them to provide for their immediate families, to travel, to have good food on the table, and to purchase good clothing and entertainment. However, they also were concerned about the way people share and care for each other in the community at large: “All we care about is getting that dollar. Yet there are people that can't work. Without money you can't eat, go anywhere.”

Industry Effects on “Work for Industry”

Figure 21 presents a summary of the way intensive oil sands development has affected Fort McKay participation in the wage economy; referred to in this report as “Working for Industry”. The inability of community members to survive based on a traditional economy because of industrial disturbance of the land, access and the current need for monetary funds hampers the community's ability to transfer and maintain traditional values. The mixed economy of the 1960s was more reflective of traditional values than the job positions available to community members at the oil sand mines.

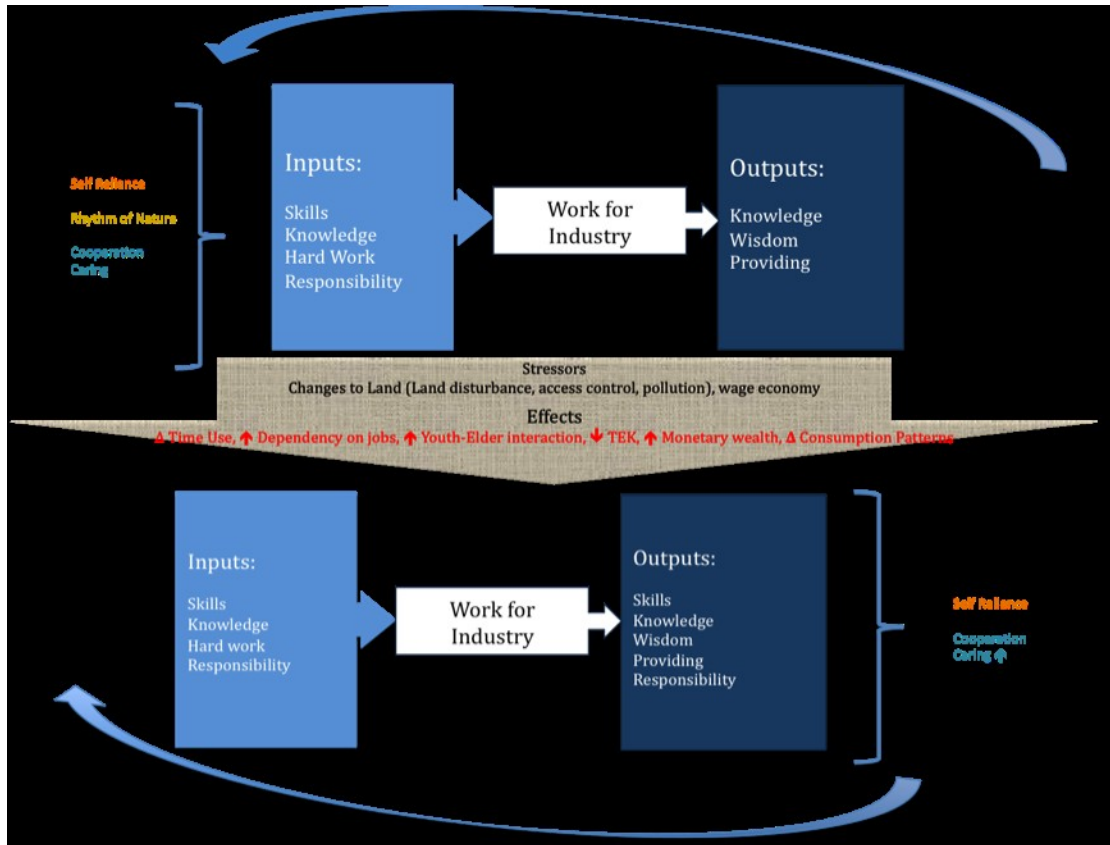


Figure 21: Industry Stressors Effects on Values Instilled through Working for Industry

By promoting and providing support to develop business within the community a number of traditional values can be instilled, including Self, Land and Community values.

4.7 Visiting

1960s Visiting

Gatherings are social and political events that play an important role in the cultural and social life of Aboriginal peoples. Traditionally, gatherings were a time of sharing and social interaction, for the transmission of traditional knowledge, the building of political consensus, of conducting marriages, and of storytelling and trade (Coutu and Hoffman-Mercredi 2002 and Fort McKay Community Workshop September 2008). The locations of Gatherings were often central and become significant places because “gathering places were like the centre cores in the circle of life which integrated the Dene clans” (Coutu and Hoffman-Mercredi 2002: 110). Traditionally, “small family bands would disperse in the late fall to traditional winter hunting grounds, coming together in the late summer to early fall when the plentiful resources of the region could support large gatherings. Archaeological and ethnographic evidence records a significant traditional gathering place used for thousands of years at Ena K’erring K’a Tuwe

(Cree Burn Lake or Isadore's Lake) near Fort McKay". (Coutu and Hoffman-Mercredi 2002). Over time, trading posts, such as Fort McKay and Fort Chipewyan, became the loci of seasonal gatherings. "Around Christmas or at New Years we would visit each other at the main campsite areas. This was the time for tea dances, and much visiting - a week at a time or more. Horses, dogs, teams, guns, everything would be given away.... After we visit we return to our winter campsites and continue hunting and trapping fine furs (FMTA 1983: 85, On the Way to Moose Lake 2002).

Elders and adults participating in this project describe their experiences in the past with visiting. During the 1960s, Christmas and the summer months (June and July) continued to be the time for meeting together and visiting (Fort McKay Workshop September 2008, June 2009). In most cases visiting was done in the home or out on the land at camps. Visits were not always planned, but always welcomed; and somewhat expected during certain times of the year. When adults came to visit, "The young ones were expected to stay to the side and be quiet." (Fort McKay Workshop September 2008). Adults would share their stories describing their experiences over the last several months. Stories were often related to traditional harvesting activities and family and youth were able to learn from the experience of their extended family, friends and neighbours. "We would learn different things from different people".

Values – 1960's Visiting

There were a number of activities that were an integral part of visiting, including storytelling, sharing and helping each other among others. As Figure 21 illustrates, visiting in the 1960s is directly associated with the following cultural values:

- Cohesion/Bonding
 - Caring
 - Cooperation
 - Self determination
 - Respect
 - Peace
 - Purpose
 - Tradition
-
- **Cohesion/Bonding:** The very essence of visiting was related to cohesion and bonding. During the times when people gathered in the community, people visited to share experiences, knowledge, stories, laughs, and views on current events. This brought people together and strengthened the ties between members of the community. Intergeneration groups spending time together.
 - **Caring and Cooperation:** Visiting was also about caring for each other and cooperation. The younger people used to be more active in visiting the elders, and bringing wild meat and supplies. People used to visit to care for each other: "Everybody visited each other in the bush, and when anybody killed anything everybody got some." (FMFN 1984)

One woman from the community used to visit all the homes every morning to make sure fire was going in each house.

(Fort McKay Focus Group January 2009)

- **Tradition:** While visiting people use the native languages and passed stories to each other and to the youth. Conversations were about traditional knowledge and skills keeping language and customs strong in the community.
- **Self-determination:** Summer visiting was often when harvest planning was done and resource management decisions were taken. “Men used to talk about hunting and fishing and trapping and sometimes visited all night long” (Fort McKay focus group, January 2009).
- **Respect:** While visiting adults would stay in the house and kids would be outside because they respected. “You could not even walk in front of an Elder – this is how we showed respect”. Elders would stay at home and younger people would visit elders also showing respect, and while resource management decisions and stories were told the value of respect for the land and animals was instilled in all age groups.
- **Peace and Purpose:** Through visiting, the values of peace and purpose were instilled. Visiting was about creating and consolidating harmonic relationships in the community and with the Creator. It also provided a sense of purpose for elders by handing down stories and knowledge and for youth by taking care of elders, sick people and other members of the community.

People visited after the spring hunt, when people were sick, at Christmas time and new years, at funerals.

(Fort McKay Focus Group January 2009)

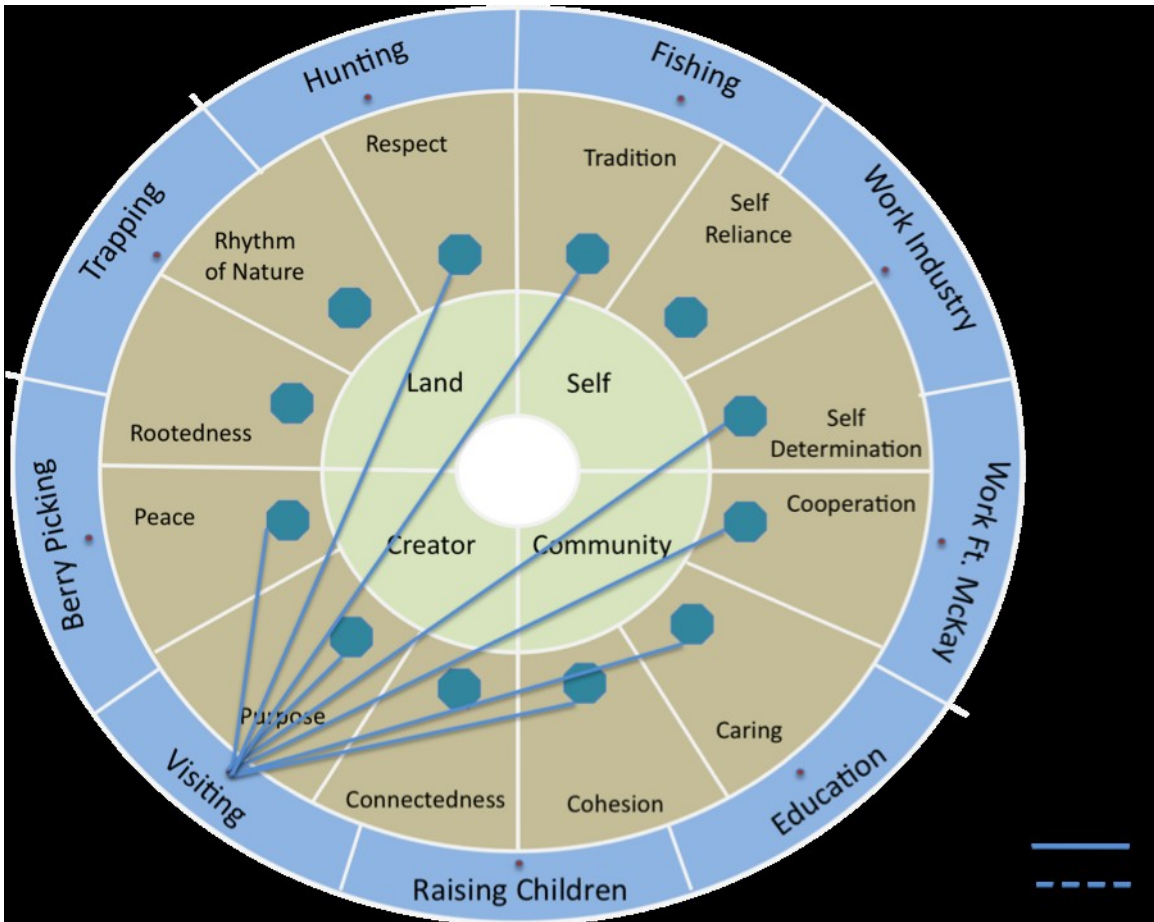


Figure 22: visiting-Traditional Value Links – 1960s

Industry Stressors:

The following descriptions of industry caused stressors affecting the way community members to visit and spend time with each other are based on community experiences and observations.

Working for industry affects people time and schedules.

As more community members take on jobs with oil sand companies; in particular those that do shift work, finding time to spend with children, spouses and extended family becomes more difficult.

“Mealtimes – this used to be important; we would eat together and share stories. We would spend time together and give thanks. Now we don’t eat together, don’t spend time together – not even on special holidays (because you can get double-time). Now anyone has their own jobs, their own timing. Everyone just worries about themselves,”

(Fort McKay Workshop September 2008)

When parents work schedules affect their ability to directly supervise their children. Also, school has changed the amount of time community members spend with each other.

Partly due to working schedules, today, social gatherings, recreational programming and free time is most often carried out with peers as opposed to mixed age groups of Elders, parents, youth and extended family. This is affecting the transfer of knowledge, traditions, the use of Cree and Dene languages and the relationships youth have with adults and elders in the community.

It also adds to the loss of language that accelerated through residential schools, conventional/formal education and increased contact with mainstream society. The reduced time youth spend listening native language due to work schedules does not help its transfer to new generations.

Loss of land and access

Several important traditional gathering areas such as Tar Island and Ena K'erring K'a Tuwe have been eliminated or significantly affected by oil sands development.

Influx of people affects feelings of safety and security

Visiting in people's homes seems to have also decreased. Youth are encouraged to participate in programs with their peer groups offered at school or the Wellness Centre. Similarly, the Elders Centre provides a place for seniors in the community to gather while youth are at school/with their friends, and older community members are at work. Community members suggest, "In the past you would just drop by – nobody locked their doors. Now you need to make an appointment. People lock their doors because they don't know who their neighbours are" (Fort McKay Focus Group 2009).

Access to goods and services has changed how we spend time.

The availability of goods and services, brought in part by the wage economy and by the influx of population to the area driven by the oil sands developments has provided technology that erodes face to face social interaction:

"Young people don't know how to have fun... Visiting was sharing stories. Now people watch TV". "TV, DVDs, gameboys - everyone texting not talking. We used to do chores-make our own life. We used to work together."

(Fort McKay Workshop 2008)

Values - Visiting 2009

Gatherings continue to play an important role in the cultural and social life of Aboriginal peoples. The participants in our study associate these gatherings with "Visiting." In the summer of 2006, FMFN hosted its first annual regional gathering. For many First Nation communities, Treaty Days or religious events (e.g., Lac St. Anne pilgrimage) may also function as gatherings. In Denesuline (Chipewyan)

territory, a different community hosts the Dene Gathering each year. These gatherings are attended by Fort McKay community members (Dene, Cree and Metis). The cultural and political tenor of these modern gatherings remains true to the traditional roots of such events.

Visiting as a general practice has changed in the way and in the amount that it takes place. Due to work schedules, the time of the year when Visiting takes place is not as relevant. And due to the increase in population and the way people spend their time it has also changed in terms of group composition.

As Figure 23 shows, there has been a change in the role visiting has in passing on core cultural values.

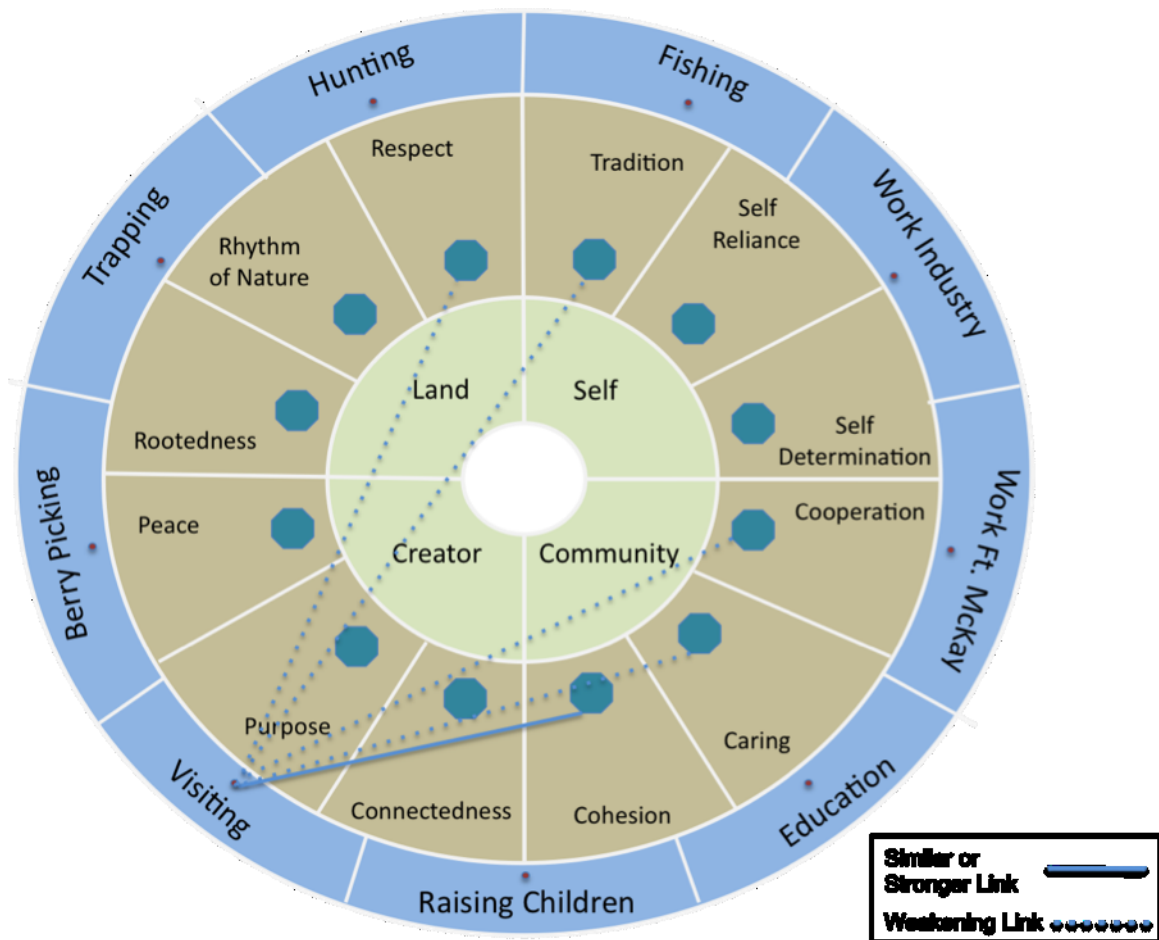


Figure 23: Visiting- Traditional Value Links – 2009

Community **Cohesion/Bonding** is still the primary value instilled through visiting. What has changed in the way people Visit is the composition of the groups and therefore the bonding between different age groups. People spend more time and Visit more with peers within their own age group: for example, from work, school or in the Elders Centre.

The different composition of groups visiting and the reduced amount of time has had a negative effect in the values of **Tradition, Respect, Cooperation and Caring**. In addition, it has affected the connections of Visiting with spiritual values – such as **Peace** and **Purpose**. The loss of language affects values related to the Creator as, “Language comes from Creator. I pray in my own language and he understands me,” (Fort McKay Workshop September 2008).

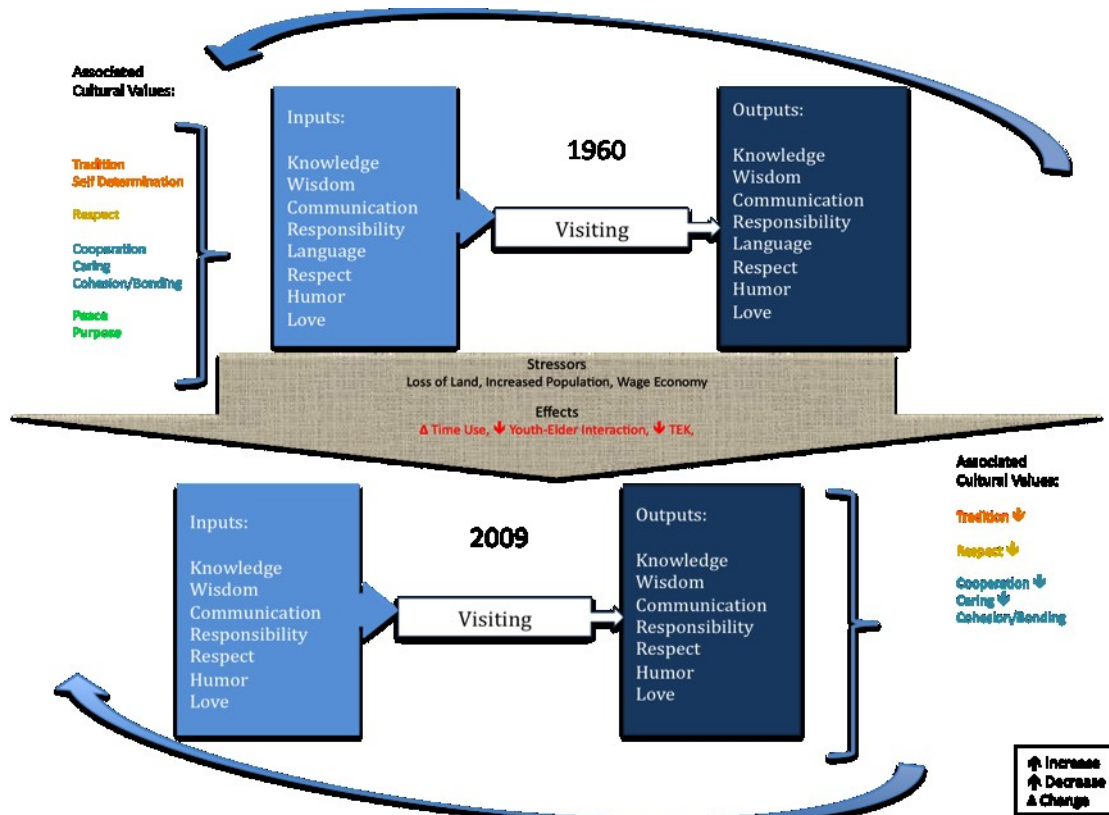


Figure 24: Industry Stressors Effects on Values Instilled through Visiting

4.8 Fishing

1960s Fishing

In the 1960s, fishing was still a widespread activity, playing an important role in the community’s culture and economy. In addition to the commercial fishery that began on Lake Athabasca in the mid 1940’s, regional lakes, the Athabasca River and its major tributaries continued to be a primary source to catch and dry fish for winter use (FMTA 1983: 91). Gatherings at summer fish camps along the Athabasca became hubs of social interaction and a place to pass on traditional skills, knowledge and where the next year’s harvest activities would be planned.

Values – 1960's Fishing

Figure 4 illustrates the links Fishing had with core cultural values in Fort McKay during the 1960s. In the 1960s, Fishing was directly related to:

- Self-reliance
- Rootedness
- Rhythm of Nature
- Cooperation
- Cohesion

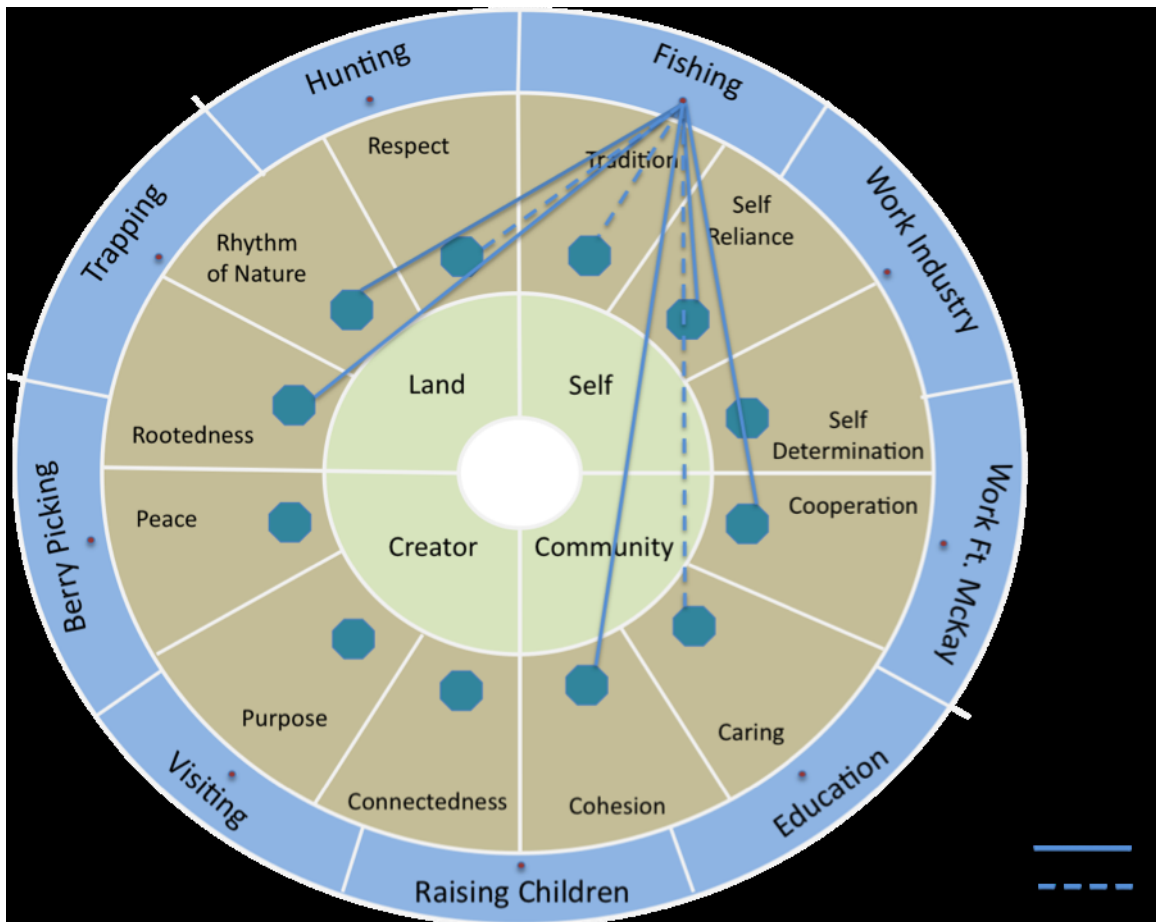


Figure 25: Fishing-Traditional Value Links – 1960s

- **Self-reliance:** Fishing was directly linked to the value of Self-reliance. Fish was used for food and to feed work dogs. “People used to get fish for food for the dogs.” “We used suckers and jackfish as dog food. The whitefish was for the People.” (Fort McKay Workshop 2008). In addition, fish helped complement their income. “Between 1950s and 1960s they started commercial fishing. I used to fish at Gregoire Lake; the fish were good. We would smoke the fish,”(Fort McKay Workshop September 2008).

- **Rootedness:** As with other harvesting activities, fishing is heavily dependent on a healthy ecosystem and knowledge of the land, thus fishing is directly related to the value of Rootedness. In the traditional land use and occupancy study (FMFN, 1994) ten species of fish are listed as part of traditional harvests throughout the territory. People knew where different fish runs were and often employed different techniques depending on the location and time of year. "We used to fish the Athabasca and Rivers near Poplar Point – different families would fish different places." "There are some places close by; and at Moose Lake and Long Lake, where people could trap (fish) in certain places." "There; at the narrows, people could trap or use forked sticks and just throw them up on the banks," (Fort McKay Workshop June 2009).
- **Rhythm of Nature:** Fort McKay Tribal Administration (1983) explains extensively the way traditional life was organized in harmony with nature (Rhythm of Nature) through the seasonal round in which fishing seasons played an integral part. "People would start winter fishing around Christmas time and then after break up they would go out again. From the spring to the fall people used nets in the rivers and the lakes," (Fort McKay Workshop June 2009).
- **Cooperation and Cohesion/Bonding:** Fishing and related activities (making nets, preparing fish etc.) were done in groups. That promoted the values of cohesion and cooperation. Seasonal fishing along the Athabasca brought people together and most recollections of fishing include extended families and the concept of working together: "Every day I would get up and check the nets with my uncle... The nets need to be made – fixed. You have to haul the nets out of the river, sort the fish, make dry fish... Women would make dry fish," (Fort McKay Workshop June 2009).

Through associated activities like developing tools, resource management and sharing, 1960's fishing is indirectly related to the following cultural values:

- Caring
- Tradition
- Respect
- **Caring:** Fishing was closely associated to other activities. Through sharing and providing for ones family it has an indirect relation to Caring.
- **Tradition:** Fishing has an indirect but strong relationship to tradition. While conducting the activity of fishing and interacting with each other as they fish and prepare fish, Fort McKay members learned about the activity, the land, and the community. As explained by Hobsbawm (1983), protocols have a function of transferring knowledge and values from generation to generation. Fishing is part of Fort McKay members' identity. "Hunting and fishing is addictive, you crave it. We are hunter-gatherers. It is inside of us." "Eating traditional foods is part of who we are." In that sense, fishing has a strong

relationship to tradition. (Fort McKay Workshop Jan, 2009) "Traditional feasts always started with fish and berries," (Fort McKay Workshop June 2009).

- **Respect:** People directly depended on resources harvested on the land. Activities related to harvesting those resources instilled the value of Respect for those resources and the environment in general. "We survived on the land; we lived our life well." "[We] used to get everything from the land... we didn't waste anything; everything was used," (Fort McKay Focus Group 2009).

Industry Stressors Affecting Fishing

Industry has polluted our water:

Industrial emissions and wastewater discharges are a continuing source of concern for community members. Concerns related to water quality, fish health and water levels have been documented in numerous EIAs (Appendix A) and community documents (FMTA, 1983, FMFN 1994, Tanner et al 2001). Many of these documents describe the cumulative effect forestry, municipalities and the oil sand industry have had on regional waterways. And while the current health advisory for the Athabasca River is associated with pulp mill effluent, an accidental release into the Athabasca in the early 1980's from one of the mines is still clearly remembered by community members. Since the 1960's, community members have witnessed changes in water levels, ice characteristics and an increase in deformed or otherwise unhealthy fish. These observations exacerbate fears associated with oil sand industry affects on local waterways. Given the proximity of Fort McKay to the mines – and the continuous sights, smells and sounds coming from the mines – it is not surprising that community members worry about the effect tailings ponds and all other wastewater discharges have on human health and overall fish and aquatic health. Without exception, Fort McKay community members will not eat fish that come from the Athabasca River or any of its major tributaries. Cumulative industrial pollution has also affected the health of Lake Athabasca, an important traditional fishery.

"We can't eat fish, we can't swim in our rivers [because they are polluted]."

(Fort McKay Workshop January 2009)

"We used to always fish in the Athabasca and we would set nets. People used to always fish and drink the water until the advisory came out; then people stopped. We did not know what was happening."

"We have to go farther and farther to find good water, animals, and fish."

"We won't eat fish from the Athabasca. The pollution in the river ended all fishing on the Athabasca."

(Fort McKay Workshop June 2009)

Industry has contaminated our food:

Pollution of surface waters (especially, but not limited to the Athabasca River) is the major deterrent of fishing for Fort McKay community members. The need to travel further distances and the related cost also discourages some individuals from fishing. Community members need to travel long distances to find traditional foods that are perceived to be healthy.

“All the rivers we would fish. [Now] we can’t eat the fish from the river. We only fish in Moose Lake; we can’t fish in the Athabasca, or Ells River or any of those places.”

“There is no point or use in teaching youth how to fish because the lake [Athabasca] is polluted.”

People don’t eat fish from the river. I went to the conference on water up there [Fort Chipewyan] and at that time they found a fish with two mouths... I used to get fish from Fort Chipewyan but now no one wants to eat fish from there anymore.”

“People get fish from Winfried Lake and from Hinton – places away from the mines. [We] have to go a long ways away to get fish.”

(Fort McKay Workshop June 2009)

Industry has changed access to our traditional fisheries:

In some cases, oil sands development has destroyed traditional fishing camps; for example the camps at Tar Island and at the “bridge to nowhere.” “People used to stay in the bush along the [Athabasca] River from [Fort McKay] to Fort McMurray. People stayed in tents and fished all along there. Now today, nobody can do that,” (Fort McKay Workshop June 2009). Within project lease areas, access to traditional fisheries may be hindered by gates or other restrictions. Generally speaking, industry-imposed access restrictions have affected the way Fort McKay people use traditional territory. The need to travel greater distances, and the time and costs associated with travel, has affected the ability for many community members to fish.

“They [industry] blocked us. No fishing, no hunting, nowhere to go.”

“...Companies are really locking things up... long waits and gates to cross lease areas.”

(Fort McKay Workshop 2008)

“To go to Moose Lake you need a plane; to go to Clearwater you need an outboard motor. Now you need to go a long ways to go fishing...that’s money.”

(Fort McKay Workshop June 2009)

Industry-related population increases and the wage economy have increased the level of goods and services available in Fort McMurray:

Time-limited schedules, land disturbance and access to shopping in Fort McMurray have made shopping for non-traditional foods an attractive option for many working community members. Fewer people rely on traditional foods for survival, due in part to the limitations to gather it and the perception of polluted local foods.

“In our time if we didn’t hunt or fish we didn’t eat. That wasn’t a nine-to-five job. Everything you did in the day (you did for survival)... there was no day off.”

“Now people don’t take the time.”

(Fort McKay Workshop September 2008)

“I get fish every 6 months but now if I want fish I go to the Safeway and buy salmon.”

(Fort McKay Workshop June 2009)

2009 Fishing

Fishing has been severely affected by industrial (oil sands, forestry and municipal) development. As a result, all relationships between Fishing and cultural values have been weakened as illustrated in **Figure 5**.

The fact that Fishing has almost disappeared as an activity performed by Fort McKay members has had a negative effect on the values that it used to instil before development. People are afraid of consuming fish from the Athabasca River and most tributaries and lakes in the vicinity of Fort McKay and downstream from the community, affecting the relationship of the activity with the values of **Self-Reliance, Cooperation**, and values related with Land (**Rootedness, Respect and Rhythm of Nature**). “We won’t eat fish from the Athabasca.” “I used to get fish from Fort Chipewyan but now no one wants to eat fish from there anymore,” (Fort McKay Workshop June 2009)

While fishing has become more of a periodic, recreational activity for most in the community, there is still some Fishing done by community members helping to preserve its relationship with the value of **Tradition**. “I teach my grandson [how to fish]; I go out in the fall with him. This is good for them.” However many elders feel that recreational fishing does not instil many cultural values or the skills that traditional fish camps and excursions used to provide. “The kids don’t learn anything through the cultural programs about fishing.” “We used to walk from different fishing sites to the community. They [youth] don’t do that.” Many community members feel that the fishery has been lost forever. “There is no point or use in teaching youth how to fish because the lake is polluted,” (Fort McKay Workshop June 2009).

The values of **Caring** and **Cohesion** are still instilled through Fishing but to a much lesser degree considering that people do not feel safe eating fish from bodies of water close to the community. "If someone goes out and gets a bunch of fish from Moose Lake, they will bring it to McKay and give it away to family and friends. People still fish." "We like to go fishing upstream because the water and fish come from Saskatchewan. People go fishing for recreation now because they can't eat it – they just throw it back," (Fort McKay Workshop June 2009).

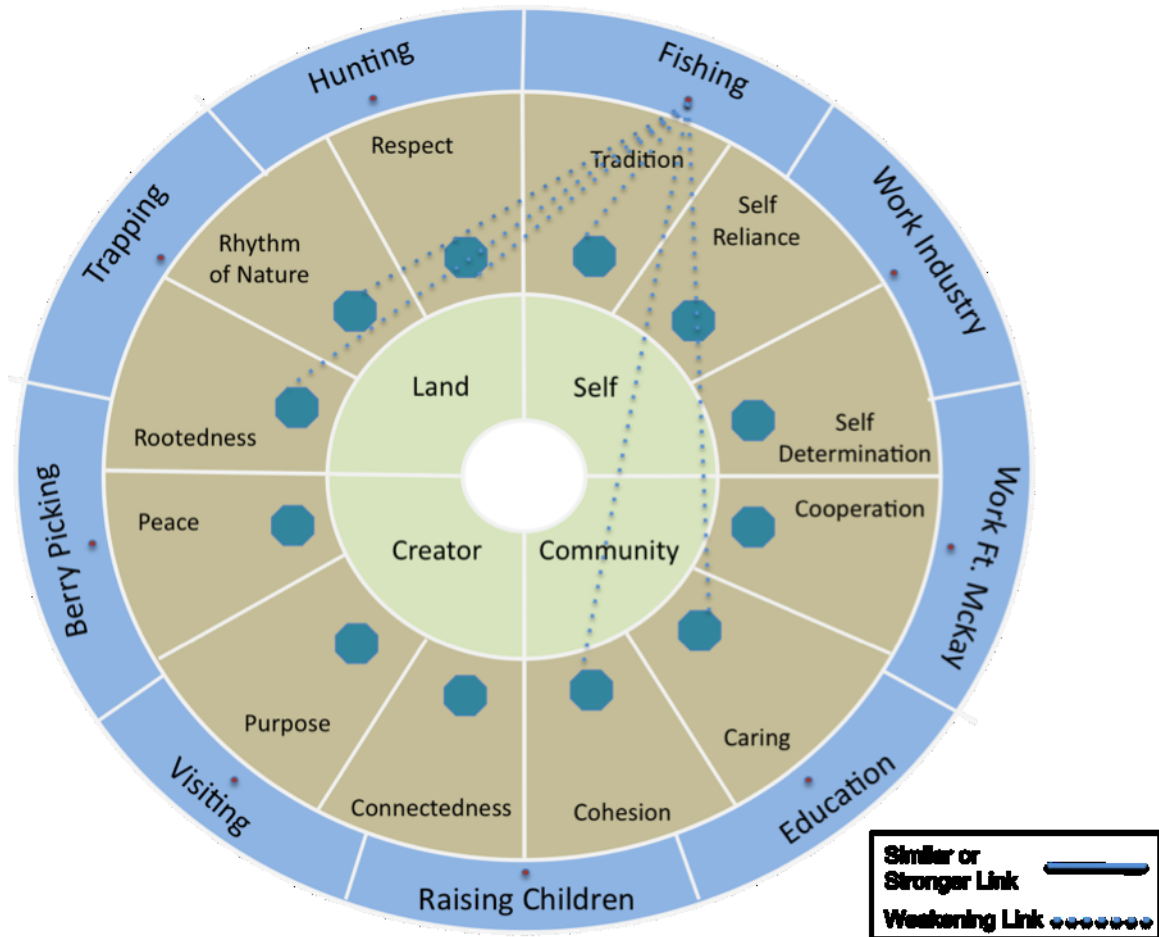


Figure 26. Fishing-Traditional Value Links – 2009

Industry Affects on Fishing

Figure 6 summarizes the effects of industry stressors on fishing. The first part of the figure (1960) represents the relationship that hunting had to values through its inputs and outputs (associated cultural tools and characteristics). As industry stressors affected the physical and social environment, inputs and outputs of the activity have been modified, which reflects the relationship fishing has with traditional values.

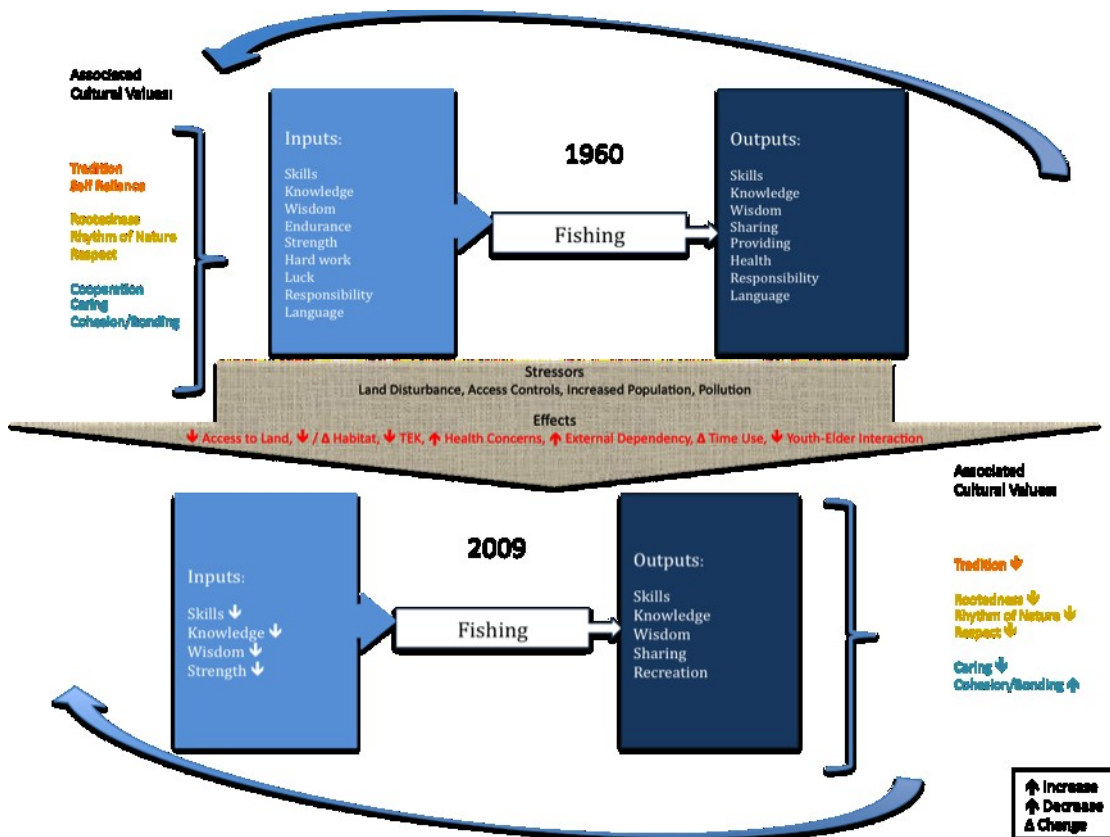


Figure 27: Industry Stressors Effects on Values Instilled through Hunting

In the 1960s Fort McKay, fishing was still a wide spread activity that played a role in its economy and culture. In present days, as a result of industry activities and its stressors, inputs associated with fishing have been modified and consequently the quality and quantity of its outputs have been reduced. This has affected the culture as a whole.

4.9 Trapping

1960s Trapping

In Fort McKay trapping has always been considered part of the annual round of hunting and related harvesting activities. Even before the fur trade, small mammals were an important source of food and materials used for clothing, tools and in some cases medicine. While the fur trade undoubtedly transformed the local economy and supplemented family incomes, few people today see trapping as an income-producing occupation in and of itself. In fact, in most cases, what is “earned” in the bush is rarely treated as “income” (FMTA 1983). Trapping was part of the traditional way of life.

By the 1960’s the registered fur management system and other government policies related to wildlife harvest had greatly affected traditional systems of

trapping. However, winter trapping continued to provide income and prescribe the seasonal movements for many of the older males in the community who travelled between Fort McKay and the family trap lines dispersed throughout the territory.

During the 1960s, as more community members began to carry out hunting and trapping from the Fort McKay settlement, family trap line areas became the most common hunting areas. From these areas, families worked as a unit to prepare for the dry meat hunting season and the spring hunt (FMTA 1983: 88, 90, 91). The spring beaver hunt traditionally focussed on beaver, muskrat, otter, waterfowl and moose (FMTA 1983:81). These times spent on the land were crucial to the passing of skills, knowledge and traditions among the Fort McKay people.

Values – 1960's Trapping

Figure 28 illustrates the values associated with 1960s trapping. 1960s – Trapping is directly related to:

- Self-reliance,
- Rhythm of Nature
- Rootedness

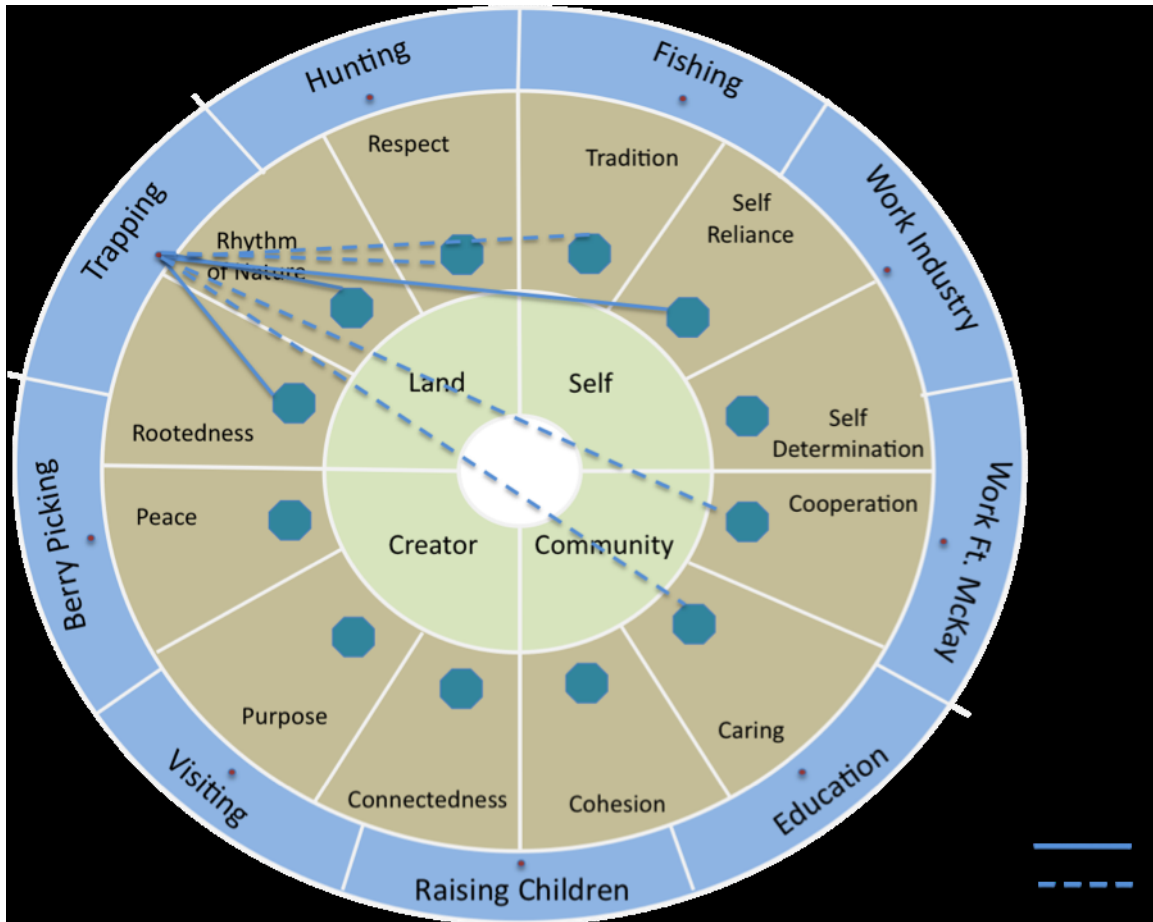


Figure 28: Trapping-Traditional Value Links – 1960

- Self-reliance:** Trapping was directly linked to the value of self-reliance. “We didn’t have to rely in anything, anyone. Providing for our selves made us proud,” (Fort McKay Workshop 2008). Throughout the 1960s, small fur-bearers continued to be used as food and also provided materials for clothing, blankets, storage and other items of utility. “We would skin the rabbit, turn it inside out and put it on your feet – that and muck lucks and your feet never got cold...” (Fort McKay Workshop June 2009). Some fur bearers (for example beaver) also provided medicine.
- Rootedness:** Trapping is directly related to the value of Rootedness. Many Elders attribute their knowledge of the land to trapping excursions where small groups would travel on foot, by dog team, with horses or snow machines from McKay to their family trap lines. This travel between McKay and trap lines is where many became familiar with local place names, traditional knowledge and the history of the land. Trapping is an activity that required people to become intimately familiar with the land and wildlife behaviour – thus strengthening that individual’s sense of place. Aboriginal people experience sense of place in a very profound way. “Everything we

had come from the land... we are people of the land. Without the land we feel lost. Without the land we are nothing," (Fort McKay Workshop 2008).

- **Rhythm of Nature:** Fort McKay Tribal Administration (1983) explains extensively the way traditional life was organized in harmony with nature (Rhythm of Nature) through the seasonal round. "Because we are a people who come from the land, it should not be surprising that our sense of time and our seasons should differ from those who have a different relationship to the land and a different form of economy," (FMTA 1983, p.78). Trapping occupied an important part of the communities' life in the yearly cycle. "[Fort McKay members] would trap all winter and then they would go back together when trapping was over – (around) May 15," (Fort McKay Workshop June 2009).

1960s – Trapping is indirectly related to the following core values:

- Tradition
 - Cooperation
 - Caring
 - Respect
-
- **Tradition:** In order to effectively trap, it is necessary to understand animal behaviour, natural cycles and the local landscape. Due to various government policies, by the 1960's the family trap line became the centre for most bush life including trapping, hunting and seasonal gathering activities. While many youth remained in McKay to go to school during winter trapping season, traditional skills and knowledge related to trapping were still passed onto youth during the summer trips to the trap line and by listening to Elders over Christmas break. Travelling to and throughout the family trap line exposed youth to various traditional skills and knowledge related to land, weather patterns and local wildlife. During the 1960's while men were away trapping, youth were expected to help to support the women in the community by snaring and trapping some small animals around Fort McKay (Fort McKay Workshop June 2009).
 - **Cooperation:** The nature of Trapping and the way community members organized their lives around it indirectly promoted cooperation between community members. "It used to be the whole family that would go fishing, trapping; not just the mom and dad; uncles, their families, everyone came." "From October to May [trapping season]... women might all come together staying here [Fort McKay] to help each other," (Fort McKay Workshop June 2009)
 - **Caring:** The value of caring is also manifested in the actions of sharing and providing.
 - **Respect:** As with other large game species, fur-bearers were harvested for their hides and for food; no part of the animal was wasted. "Back then...

there was an inherent respect in the process, for animals and for each other.” “[We] used to get everything from the land, for example moose hide for ropes, gloves... make moccasins... we didn't waste anything; everything was used.” “[We] didn't have to rely on anything, anyone,” (Fort McKay Focus Group 2009). “

Industry Stressors Affecting Trapping

Industry has changed the land:

In the early 1980s, the Fort McKay Tribal Administration (currently known as the Band Council) declared that, “It is impossible for us to continue to withdraw and still have enough land to serve as an economic base for us in the ways that we choose. This is particularly clear in the case of the trap lines (FMTA 1983:34). Since that time there have been a number of major projects approved within McKay territory, particularly near the Athabasca River. Today a significant portion of Fort McKay's traditional territory has been affected by industrial development; oil sands development has transformed the landscape, affected wildlife populations, air quality and water. Because of oil sand development, living a subsistence lifestyle is no longer an option for people living in Fort McKay.

“The industries will not be here forever. Then what? Who is going to teach them the trails where to go? The landscape has changed. Now there are hills where there were none before. Trails have moved. I don't know how to get to my own trap line.”

“Now everything is gone and it's hard to accept, but what can you do? You are forced to walk away. The Land will never be the same.”

(Fort McKay Workshop 2008)

Industry caused disturbance affects the animals:

The cumulative pressure of development within Fort McKay's traditional territory and the effect this has had on regional wildlife has impacted the ability of Fort McKay people to pursue trapping.

“When Suncor arrived here, that is when everything changed. They used to cut all the trees. Killed everything when they cleared the land. There is nothing left on my line – they killed it all. I am an old trapper; I have lived here my whole life.”

(Fort McKay Workshop June 2009)

“People can't trap anymore; there are too many companies on the land; all the small animals move out. There is no way we can trap anymore.”

(Fort McKay Workshop June 2009)

“Oh, there used to be so many porcupines (good meat) all over. Now, suddenly they are gone – I don’t know how. ...Everywhere you would look – already porcupines, skunks, all kinds of animals. Now nothing – no porcupines, not even whisky jacks.....”

(On the Way to Moose Lake 2002)

Industry has changed access to our traditional land and increased non-native populations:

Changes in access have affected the territory and the ability of people to access the land. Access onto or through active project areas can be limited by industrial proponents for safety reasons.

“They [industry] blocked us. No fishing, no hunting, nowhere to go.”

“...Companies are really locking things up... long waits and gates to cross lease areas.”

“Now we need permission to go onto our trap lines.”

Fort McKay Workshop 2008

Cut lines and industrial access roads through crown land can also open up trap lines to recreational users. The increased number of non-community members using the land has resulted in numerous accounts of vandalism, theft and conflicts between McKay trappers and non-Aboriginal people. These incidents have discouraged some Elders from wanting to spend time on trap lines due to concerns over personal safety.

2009 Trapping

Trapping is no longer considered a subsistence activity in Fort McKay. While remaining an important cultural activity, few community members have the opportunity or ability to spend significant amounts of time trapping. This has affected the link this activity has in instilling cultural values, even for the reduced number of people who still trap.

Figure 28 illustrates there has been a shift in terms of the traditional values that are influenced by trapping since the 1960s.

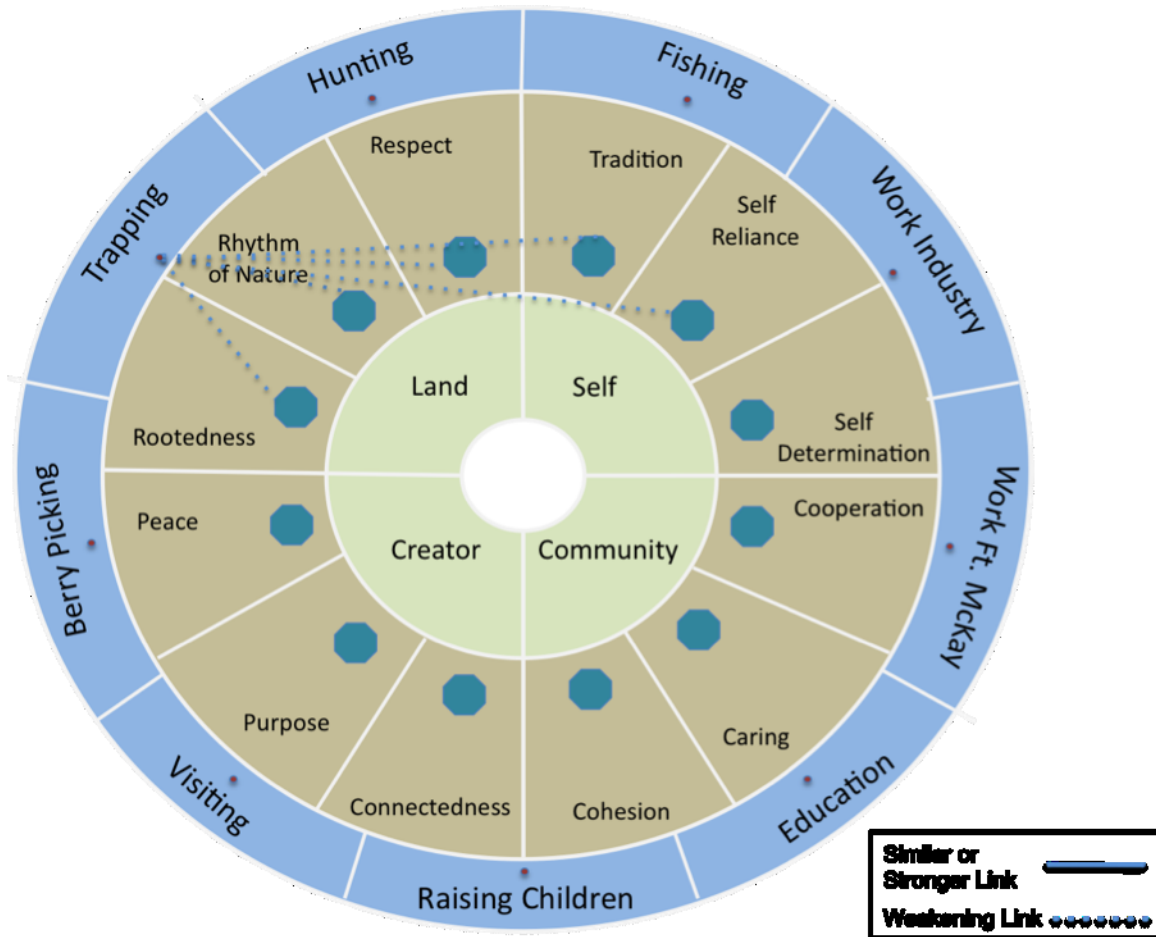


Figure 28. Trapping-Traditional Value Links – 2009

Values related to Self continue to be instilled through Trapping but to a much lesser extent than in the 1960s:

- **Tradition:** As more land around Fort McKay becomes unavailable and people have less time and/or need to trap, fewer people have the opportunity to learn traditional skills from Elders. In that sense, trapping has lost part of its function to instill the value of tradition (transfer of knowledge and values). This function has not been totally lost. There are people who seek and share traditional knowledge from within the community. “Young people that want to learn traditional ways seek knowledgeable people,” (Fort McKay Workshop 2008). In addition, Fort McKay has a very active Trappers’ Advisory Board that works with the IRC to provide input on various issues including wildlife management, access management, reclamation and trappers’ compensation issues.
- **Self-reliance:** The linkages to Self-reliance have been disrupted and changed. Trapping is no longer considered a viable economic pursuit and few people trap solely for food. “Everything we had come from the land. Now we don’t rely on anything on the land,” (Fort McKay Workshop 2008).

Community members agree that, "Even when in the 60s hunting and trapping provided money, but not today," (Fort McKay Workshop 2008).

The values related to Land are still instilled through the activity of trapping but to a much lesser extent than in the 1960s:

- **Rootedness:** The linkages between trapping and the value of Rootedness have been weakened, as opportunities for trapping are reduced by oil sand development. Rootedness is affected because far fewer people have the ability to spend long periods of time out on the land. Oil sand development has affected significant portions of community members' trap lines, in particular those areas closest to Fort McKay.
- **Rhythm of Nature:** The linkages between trapping and the values associated with the rhythm of nature have been weakened. Trapping still occurs between October and May. However, work (and school) schedules require community members to spend fixed amount of times with non-community members in non-traditional roles. Work (and school) schedules affect how long people can spend trapping. "[We] lived by the season: moose hunting, fishing, ducks, roe, berry harvesting. Now we live by the clock," (Fort McKay Workshop September 2008).
- **Respect:** The worldview of the youth has changed such that they no longer consider themselves "dependant" on the natural environment; in particular furbearers, for survival. New generations do not have as many opportunities to spend time on the land with the Elders to learn the role these animals played in the history, mythology and overall culture of the Fort McKay people. This has affected the level of Respect youth attribute to these animals and their environmental requirements and towards the land in general.

Industry Effects on Trapping

Figure 29 summarizes the effects of Industry stressors on trapping. The first part of the figure (1960) represents the relationship that trapping had to values through its inputs and outputs (associated cultural tools and characteristics). As industry stressors affected the physical and social environment, inputs and outputs of trapping have been modified, which affects the relationship trapping has with traditional values.

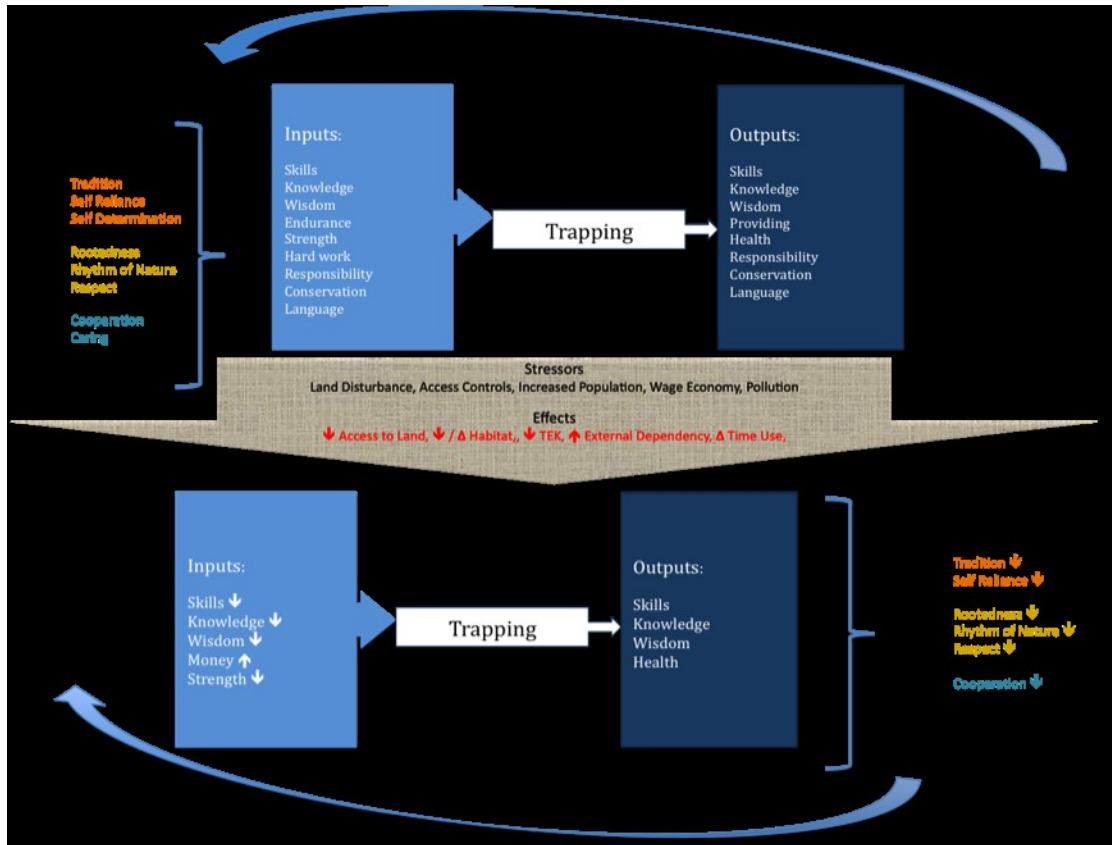


Figure 29: Industry Stressors Effects on Values Instilled through Hunting

In the 1960s trapping was diminishing, but still considered an important part of Fort McKay's economy and culture. Trapping was directly and indirectly related to most Land, Self and Community core cultural values. In present days, as a result of oil sand activity and its stressors, inputs associated with trapping have been modified. Consequently, the quality and quantity of its outputs have been reduced. This has affected the culture as a whole.

5 Fort McKay Cultural Values (1960-2009)

Culture is derived from the way people meet their needs, carry out their daily rituals, and organize and express themselves. Cultural patterns emerge through a dynamic, interactive process involving belief systems, past and present needs and interests, and future dreams (Maehr & Stallings, 1975). Cultures (and thus cultural values) change naturally and in response to many socio-economic and environmental stressors. The suggestion that 'traditional' cultures and identities are fixed and static has lost currency long ago. Castells (1997: 59) suggests that in such 'cultural communes' in which 'ethnic materials' have been powerfully interwoven over time but which are now being torn away from their historical contexts by new forces that, 'ethnic roots are twisted, divided, reprocessed, mixed, differentially stigmatized or rewarded, according to a new logic of informationalization / globalization of cultures and economies that makes symbolic composites out of blurred identities (Deneiro 2007: 267).

This statement reflects the situation of Fort McKay. Fort McKay culture is in the process of being redefined as oil sand development continues to be a focus of the Canadian and world economy.

Figures 25 and 26 represent the linkages between activities and traditional values in Fort McKay in the 1960s and in 2009. One community member used the analogy of a dream catcher to describe the importance of these linkages in McKay culture. Maintaining links to traditional values through daily activities strengthens the "cultural fabric" of the community – suggesting the weakening of any one of these links affects culture in its entirety.

By comparing the two figures, the weakening of most links from 1960 to 2009 becomes noticeable. The exception to this is the current importance of Working for Fort McKay in terms of instilling traditional values. In reviewing these models, one community member suggested "these (models) show the way our culture is disintegrating – being pushed out by white culture" (Fort McKay Workshop June 2009). In the case of Fort McKay, the oil sand industry has undoubtedly affected culture, but it will be up to the community to determine if these changes are positive or negative.

The influences of oil sand development on each activity and the changes to the linkages to traditional values is explained in detail in the previous sections. The relative weights of the links in these figures represent the perception of the community participants in this study as a means to identify indicators. In order to quantify or qualify the impacts on the links between stressors, activities and values it will be necessary to collect and analyze data on indicators selected by the community.

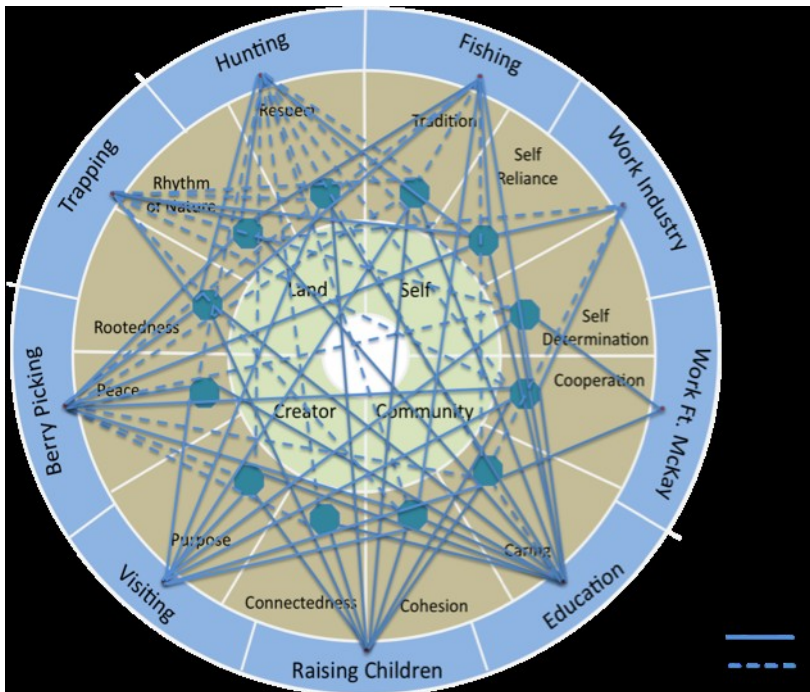


Figure 25: Activity-Traditional Value Links – 1960

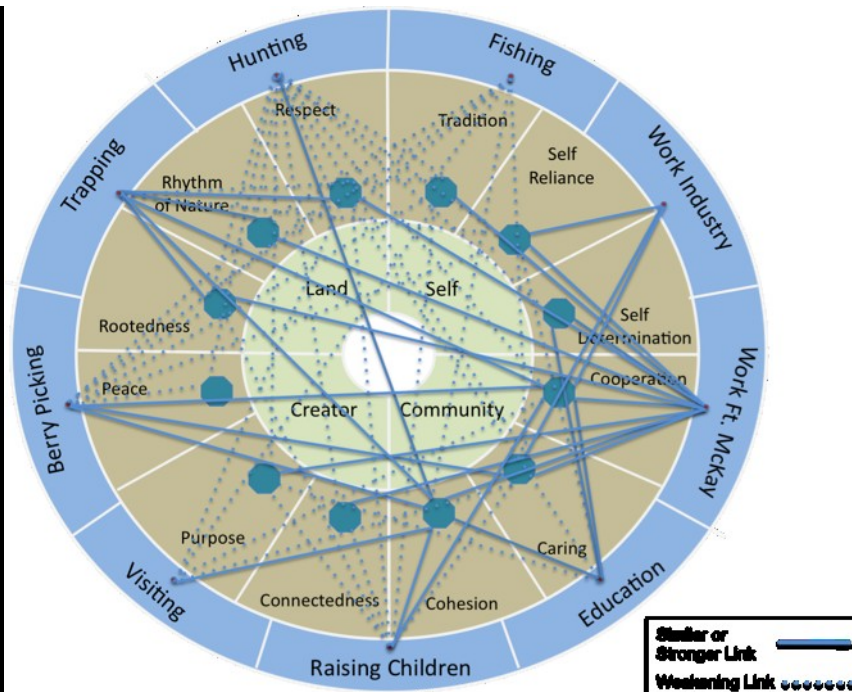


Figure 26: Activity-Traditional Value Links – 2009

6 Indicators

Indicators

The previous sections have begun to describe the complex relationship and linkages between Fort McKay cultural values and specific kinds of cultural activities. As shown in the Figures presented in Section 5, the core values defined and selected by Fort McKay for this study are interrelated and are reflected in many different kinds of activities. There is no singular cause and effect relationship that can be defined between a change in a particular activity and a change in a related variable.

By identifying and developing indicators for each activity that reflects core values of the community, Fort McKay can learn more about the changes in culture and values.

The following sections introduce the rationale for using different types of indicators for tracking cultural change and effects of external influences on culture. They also present the indicators that were recommended during the various community workshops. Based on these recommendations and a review of select literature, some recommendations for indicators and next steps are proposed.

Types of Indicators

There are many words for indicator — sign, symptom, omen, signal, tip, clue, grade, rank, data, pointer, dial, warning light, instrument, measurement (Meadows 1998: 1). This study describes indicators as a tool for tracking change in the cultural values. Indicators can be both quantitative (measures of change) as well as qualitative (descriptive of change). Both kinds of indicator are important in understanding cultural change in Fort McKay.

Indicator: tool for understanding and measuring changes in environmental, social, and cultural conditions. Indicators can be counted, measured and described. They represent broader environmental and social conditions.

Quantitative indicators include things that we can easily count, measure or weigh. For example, the number of hectares of land that has been taken up by oil sand development, the kilometres of linear access that exists in the territory or the amount of a given chemical found in the air or water. Researchers often rely on scientific instruments, mapping and computer models to generate information related to these indicators.

However, in accordance with national and international perspectives on developing appropriate indicators for Aboriginal communities, qualitative approaches to collecting information on indicators, such as case studies and interviews with community members, should be explored to measure complex

issues of significance to (Aboriginal) perspectives on development and well-being (PFII 2006:15). Some examples of Qualitative questions are:

- Why do people consider hunting an important aspect of their culture?
- Do people worry about the health of wild animals?
- How safe do people consider the meat harvested from areas close to McKay?
- How confident are people that future generations will have the knowledge and skills to hunt?

When community members are asked to explain *why something is important, and why they want certain indicators to change in one way or another*, their answers reflect cultural worldviews, values and the current situation of the study participants. This provides important context for interpreting study results and informing future work (see Deneiro 2007: 256).

Qualitative indicators will help the IRC understand the linkages between various stressors and cultural outputs. For example, recent research examining community participation in traditional harvesting activities in a northern community found that, "It is most typically those in the village who are better educated, who are in a stable partner relationship, who have a wage-labour position, who have some sort of additional transfer income, and therefore are more able to purchase material goods (most especially 4 wheel ATVs, snow machines, and refrigerators/ freezers) who are also the most likely to be conducting subsistence activities," (Deneiro 2007: 258). This need for cash in particular (a relatively new indicator) in helping to perpetuate subsistence in Alaska native communities is well known (see, for example, Agricultural Experiment 1978: 5–7; Nuttall 2005: 668; in Denerio: 256).

What is interesting about this example is that in Fort McKay, many community members would have predicted the opposite relationship between having a job and an increased participation in hunting. Elders often associated increased time in school and at an industry job with decreased hunting.

This example also helps to illustrate that while indicators can be used in isolation of one another, the more useful approach is to identify a suite of indicators that are synergistic – or work together to tell a complete story about the change. Given the complexity of cultural change in Fort McKay, an approach that offers a range of both quantitative and qualitative indicators for consideration in a future monitoring or assessment effort will be particularly useful.

Selecting indicators for Fort McKay

One of the primary outcomes of our study was to generate a list of indicators that would reflect the culture (values, traditions, economies, societal structure) of Fort McKay. When developing indicators of cultural change, the connection between the indicators and the community voice is very important to ensure that people identify certain indicators as reflecting their stories or realities. As

such, the process of developing the indicators is as important as the indicators themselves.

During the course of this study HEG asked the community to put forward recommendations for indicators. Through these facilitated discussions, community members used their own observations and experience out on the land to inform the indicator selection process. The community suggestions for cultural indicators are listed below. They have been presented as:

- 1st Level Indicators
- 2nd Level Indicators
- 3rd Level Indicators
- 4th Level Indicators

1st Level Indicators

First Level Indicators are the activities themselves. Using the rationale presented at the workshops by community members (summarized in Section 4), participation in these activities affects the extent to which the cultural values identified for the Fort McKay model are being realized and expressed in the community. For example, more opportunity and ability to hunt by community members indicates increased likelihood that the cultural values related to Land (Rootedness, Respect, Rhythm of Nature), Self (Tradition, Self Reliance, Self determination), Community (Cooperation, Caring, Cohesion/Bonding), and the Creator (Peace, Purpose and connectedness) are being instilled. As the opportunities for community members to hunt decrease, some of the values associated with these activities erode and become replaced by different values – and cultures change. In that sense the activities, hunting in this case, are an indicator of values and culture.

Of course the extent to which these values are being instilled depends on the way these activities are being carried out. So to have a clear understanding of how an activity can be used as a “sign” of culture and values, other indicators need to be developed. For the purpose of this study, the various cultural tools that determine “how” an activity is being carried out have been described using “input and outputs” in Section 4. Changes in the type/quality of “inputs” and “outputs” can be tracked using second level indicators.

2nd Level Indicators

During workshops, participants described change in terms of the way people carried out/were able to carry out various cultural activities. First Level Indicators (activities) provide a sense of how much activities carried out instill traditional values (e.g. in general terms, the more people hunt the more Rhythm of Nature, Self-reliance and other values directly linked to hunting are instilled in the person and the community).

Second Level Indicators have two functions: the first one is to measure how much the activity is being carried out by people in Fort McKay. For example, in order to know how much more or how much less community members are hunting, we need second level indicators such as how many hours people spend

each month hunting, how many people hunt regularly and how much wild meat is “produced” through hunting.

The other function of Second Level Indicators is related to the way activities influence values. The way community members carry out activities has changed due to a number of factors – including oil sands impacts – and therefore the relationship between the activity and traditional values may not be as clear and direct, or even have the same effect on the cultural values.

To establish clear relationships and to understand effects of certain activities in cultural values it is necessary to understand how the way in which activities are being conducted support or oppose traditional values.

Second Level Indicators will help us measure and understand how activities actually affect cultural values. Or in other words, whether links between activities and values are being strengthened or weakened. For example, tracking the type and composition of hunting groups, the purpose of hunting (teaching, recreation, food, etc.) and times when hunting takes place can help us understand how the activity is instilling values of Cohesion, Self-reliance or Rhythm of Nature. Collecting and analyzing information over time will help us understand changes and trends concerning activities and their affect on values.

3rd Level Indicators: Industry Stressors.

Indicators can be useful in measuring the nature and extent of a cultural impact; however, indicators may also be useful in measuring the level of stress or disturbance (i.e. stressors) that causes the effect. By measuring both ends of change – the cause and the presumed effect - a greater understanding of how change is occurring can be garnered. In the case of Fort McKay, measures that capture the extent of development and the stresses (e.g. area of land lost or disturbed) would be helpful in telling the story of cultural change in the community.

Equally important however, is the need to identify all sources of stress and weight the degree of change accordingly. For example, it may be estimated that 40% of the cultural change in Fort McKay is attributable to other sources of stress (e.g. government policies, television etc.) while 60% of change is attributable to oil and gas development. Determining the appropriate weighting will be up to the community and their administration based on indicators of actual and perceived impacts. Relating Second Level Indicators to Third Level Indicators will provide information necessary to determine the potential impact of oil sands development on the way people conduct activities; that in turn affects values and culture. For example, the loss of land attributed to oil sands development, reduction of access and pollution by industry compared with the amount of hunting and wild meat consumption by community members will provide an understanding of the actual effect of oil sands development in traditional culture mediated by the activity of hunting.

Section 4 provides some background on community perspectives related to Industry Stressors. Appendix C lists the stressors that were discussed during the community workshops. In summary, the stressors affecting Fort McKay culture are:

- Loss of Land
- Pollution
- Access to Traditional Land
- Wage Economy
- Increased Population

4th Level Indicators

Fourth Level Indicators are useful for describing stressors in absolute terms as well as from a perceived and cultural perspective – bringing the circle back to Fort McKay cultural perspective. These indicators provide understanding and present a more complete picture of the stressors and their effects on Fort McKay culture. Many of these indicators are the focus of the Environmental Impact Assessment, such as percentage of land disturbance, effects on specific species of flora and fauna, and air quality. Other indicators may also consider traditional knowledge and community perception – such as water and air smells, colours of wildlife fat or guts, size and shape of berries.

A group of indicators representing all four levels will help determine quantifiable and qualifiable links between activities and values in a more precise way. This will also establish the effects industry has had on the way in which community members get engaged in the activities – and how often. The result will be a clear link between oil sands development and its effects on Fort McKay culture.

Results Summary

The following table: Indicators Table for the Fort McKay Cultural Heritage Assessment, presents the community suggestions for 1st, 2nd, 3rd, and 4th Level Indicators. This table can be used as the basis for selecting a suite of indicators that measure and qualify the most important aspects of culture for the community as well as the oil sands development stressors that are perceived to be causing cultural effects. Figure 29 shows an example of the linkages between indicators, stressors activities and cultural values for the activity of hunting.

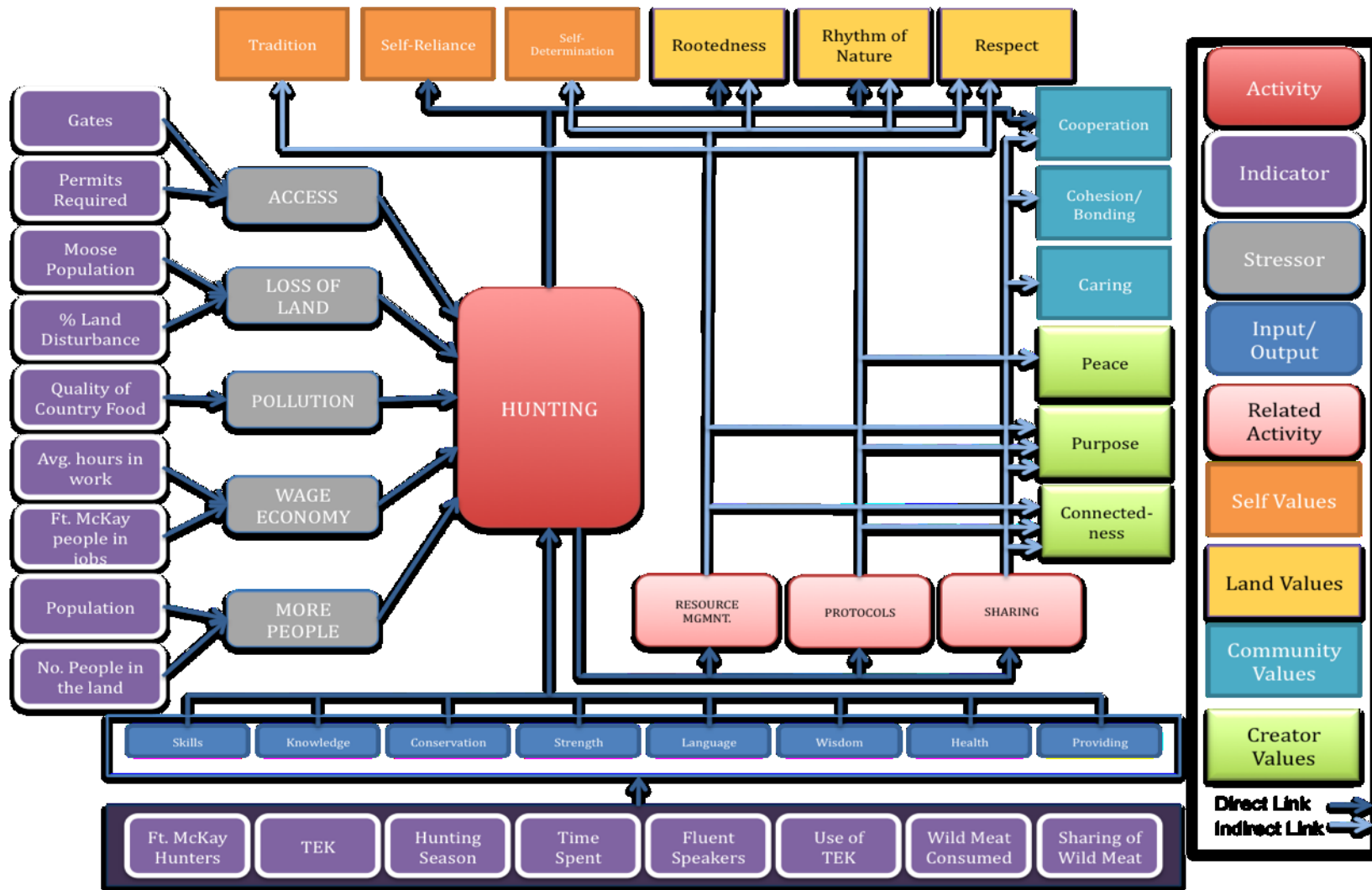


Figure 29: Example of Linkages between Indicators, Stressors, Inputs/outputs, Activities and Values

Indicators Table for the Fort McKay Cultural Heritage Assessment		
Cultural Components	Values	1 st Level Indicators (Activities linked to values)
SELF	Tradition	Hunting Berry Picking Visiting Raising Children Education Work for Ft. McKay Fishing Trapping
	Self-reliance	Hunting Berry Picking Education Work for Industry Work for Ft. McKay Fishing Trapping
	Self-determination	Hunting Berry Picking Visiting Education Trapping Work for Ft. McKay
COMMUNITY	Cohesion	Hunting Berry Picking Visiting Raising Children Education Work for Industry Work for Ft. McKay Fishing Trapping
	Caring	Hunting Berry Picking Visiting Raising Children Education Work for Industry Work for Ft. McKay Fishing
	Cooperation	Hunting Berry Picking Visiting Raising Children Education Work for Industry Work for Ft. McKay Fishing

Indicators Table for the Fort McKay Cultural Heritage Assessment		
Cultural Components	Values	1 st Level Indicators (Activities linked to values)
		Trapping

Indicators Table for the Fort McKay Cultural Heritage Assessment		
Cultural Components	Values	1 st Level Indicators (Activities linked to values)
LAND	Respect	Hunting Berry Picking Visiting Raising Children Education Work for Ft. McKay Fishing Trapping
	Rootedness	Hunting Berry Picking Visiting Raising Children Education Work for Ft. McKay Fishing Trapping
	Rhythm of Nature	Hunting Berry Picking Visiting Education Work for Industry Work for Ft. McKay Fishing Trapping
CREATOR	Peace	Hunting Education Work for Ft. McKay
	Connectedness	Hunting Berry Picking Visiting Raising Children Education Work for Ft. McKay Fishing
	Purpose	Hunting Berry Picking Visiting Raising Children Education Work for Ft. McKay

Indicators Table for the Fort McKay Cultural Heritage Assessment, (continued)		
Activities	2nd Level Indicators To Measure Change In Activities	3rd Level Indicators Industry Stressors
Hunting	Do people consider hunting an important aspect of their culture? Do people worry about the health of wild animals? How safe do people consider the meat harvested from areas close to McKay? How confident are people that future generations will have the knowledge and skills to hunt? Time spent hunting # of youth/adults/elders hunting (For food? For recreation?) Amount of wild meat consumed Knowledge of meat preparation Sharing of wild meat (perceptions/measure of activity) # of smokehouses in McKay/on McKay trap lines Participation/knowledge of hunting protocols Distance travelled to harvest healthy moose Harvest planning Size/composition of hunting groups # of people who know where and how to hunt (traditional skills/knowledge)? Wastage seen at moose kill sites Improper disposal of moose parts Directly or indirectly (i.e. stories) observed disrespect towards animals Numbers of moose harvested by local hunters # of opportunities for Elders to pass knowledge and skills to youth about hunting # of opportunities for youth and Elders to work together hunting Amount of meat purchased at the grocery store Use of place names Participation in the spring and fall hunt (incl. preparations) Sightings of animals Locations of moose harvesting activities	Access to Land Loss of Land Pollution Wage Economy Increased Population

Indicators Table for the Fort McKay Cultural Heritage Assessment, (continued)		
Activities	2nd Level Indicators	3rd Level
Berry Picking	Do people consider berry picking an important aspect of their culture? Do people worry about the health of plants? How safe do people consider the berries harvested from areas close to McKay? How confident are people that future generations will have the knowledge and skills to gather and process wild plant foods? Time spent berry picking # of youth/adults/Elders berry picking (for food/recreation) Size/composition of group berry picking Volume of wild berries harvested/consumed Sharing of berries (perceptions/measure of activity) Stories told/learned through berry picking # of opportunities for youth and Elders to work together berry picking # of opportunities for Elders to pass knowledge and skills to youth about berry picking Location of berry patch Harvest planning Traditional skills/knowledge base	Access to Land Loss of Land Pollution Wage Economy Increased Population
Visiting	Do people consider visiting an important aspect of their culture? Do individuals worry about the people in their community? How safe do people feel in McKay? How confident are people that others in their community care about their personal well-being? # of neighbors known Time spent visiting # of people visited (weekly, monthly) # of youth/adults/Elders gathered per visit # People (Elders and youth) spending time together # of opportunities for youth and Elders to spend time together at community gatherings Stories told/learned through visiting Attendance at gatherings Funding for gatherings How often and for how long do people see relatives/extended family?	Wage Economy Increased Population

Indicators Table for the Fort McKay Cultural Heritage Assessment, (continued)		
Activities	2nd Level Indicators To Measure Change In Activities	3rd Level Indicators Industry Stressors
Raising Children	Do people consider traditional approaches to child rearing an important aspect of their culture? Do people worry about the children/youth in their community? Do people worry about mothers/parents in their community? How confident are people that others in their community care about their children? # parents raising children full time Time spent raising children (immediate/extended family) # people (Elders and youth) spending time together # children participating in Wellness programs # kids in day care/after school care Access to child care Local authority (through Elders/leadership) to deal with illegal activity # grandparents involved in raising children # aunts, uncles, cousins, siblings providing care Youth care/programming in McKay vs. Fort McMurray	Access to Land Loss of Land Increased Population Wage Economy
Education	Do people consider traditional methods for transferring skills and knowledge an important aspect of their culture? Do people worry that traditional knowledge/ways of knowing are being lost? Do people worry that traditional skills are being lost? # of adults/Elders sharing knowledge with youth Time spent in traditional activities (intergenerational) Fluent speakers of Dene/Cree by age # people who understand Dene/Cree TEK Primary identity label (Cree, Dene, Metis, a healer, an engineer, a consultant...) Skills to do traditional activities Participation on cultural programs Graduation rates (high school, post-secondary) Cultural programs/activities embedded in curriculum Community/Elder participation in school programs Funding for cultural education School attendance in McKay vs. McMurray	Access to Land Loss of Land Wage Economy Increased Population

Indicators Table for the Fort McKay Cultural Heritage Assessment, (continued)		
Activities	2nd Level Indicators To Measure Change In Activities	3rd Level Indicators Industry Stressors
Work for Industry	Do people consider working for industry a good thing? Are people conflicted in terms of their jobs with industry and their cultural relationship to the land? Families with one person employed by Industry Families with both parents employed by Industry Position held with industry Shift work Company policy related to FN pursuit of traditional activities	Access to Land Loss of Land Wage Economy
Work for Ft. McKay	Involvement and support local politics/governance Relationship with Band administrators Families with one person employed full-time by Ft. McKay Families with both parents employed by Ft. McKay # People participating in workshops # People participating in cultural camps # People interviewed for TLUS, EIAs and other Studies Fort McKay participation in regional decision making # People participating in advisory groups \$ amount distributed by IRC for industry initiatives	Access to Land Land Disturbance Pollution Wage Economy Increased Population
Fishing	Do people consider fishing an important aspect of their culture? Do people worry about the health of fish? How safe do people consider the fish in local lakes and rivers? How confident are people that future generations will have the knowledge and skills to fish? # of people fishing (for food/recreation) Time spent fishing # of fish camps along the Athabasca # of fish camps other places Distance traveled to harvest healthy fish Use of fish at feasts and other community gatherings # of people that receive gifts of fish from friends/family living on other communities (How often?) Amount of fish purchased from grocery stores in Fort McMurray Wild fish consumed (total amount) each month Store-bought/farmed fish consumed each month	Access to Land Land Disturbance Pollution Wage Economy Increased Population Industrial water use

Indicators Table for the Fort McKay Cultural Heritage Assessment, (continued)		
Activities	2nd Level Indicators To Measure Change In Activities	3rd Level Indicators Industry Stressors
Fishing (cont'd)	<ul style="list-style-type: none"> # people who know the signs/signals of a "healthy" fish # of people that know where to fish (for healthy fish) # of youth/adults/Elders know how to set nets # of youth/adults/Elders know how to make nets # of youth/adults/Elders know about "trapping" fish/use of weirs # of opportunities for youth and Elders to work together fishing # of opportunities for Elders to pass knowledge and skills to youth about fishing # of cultural programs provide opportunities for youth to learn about fishing (program success) 	
Trapping	<ul style="list-style-type: none"> Do people consider trapping an important aspect of their culture? Do people worry about the health of animals (beaver, rabbits, bear, etc.)? How safe do people consider the meat/organs from local furbearers (food/medicinal use)? How do people rate the quality of local furs? How confident are people that future generations will have the knowledge and skills to trap? # of people trapping # of people who know where and how to trap # of people who have a trap line Amount of time spent on the trap line # of McKay trap lines being affected by industry # of people who know the signs/signals of a healthy animal # of opportunities for youth and Elders to work together trapping # of opportunities for youth and Elders to work together trapping # of opportunities for Elders to pass knowledge and skills to youth about trapping # of cultural programs provide opportunities for youth to learn about trapping (program success) 	<ul style="list-style-type: none"> Access to Land Land Disturbance Pollution Wage Economy Increased Population

Indicators Table for the Fort McKay Cultural Heritage Assessment (cont'd)	
Stressors	4th Level Indicators Measuring Change In Stressors
Access to Land	Gates Permits to Access Land Alterations to trails/roads Trapper experience (reported delays, limitations etc.) # of traditional waterways crossed by industry infrastructure # of trailers/trucks parked at access points
Loss of Land	% Land Disturbance Kms of linear disturbance ±wildlife/veg. abundance/distribution/quality Habitat disturbance Wildlife habituation Loss of TLU sites (FMFN 1994) Loss of "berry" habitat
Pollution	Unusual smell, colour, spotting of flesh Air quality (visual and measured) Smell Water quality Water quality perception Look/behaviour of animal (TEK: hair, flesh, fat, gait, etc.) Government directed health advisories Colour/condition of fat and organs
Wage Economy	Average hours of work # people working for industry Consumption Cost of living
Increased Population	Population growth in the area # people with hunting permits Recreation activities (clubs, tours) Populations in work camps near McKay # of incidents on McKay trap lines
Industrial Water Use	# of water licenses issued for the Athabasca River/traditional waterways Volume of permitted industrial water use/year Water quantity Water levels (in-stream flow needs) # of accidents/malfunctions reported/year # of traditional waterways affected by industry

Recommendations

This work represents the first step in jointly developing a suite of indicators with the community. Further work must be done to:

- Evaluate Indicators with Local Community (Accuracy, Relevance, Ease of Use);
- Develop an Indicator short list as a starting place;
- Identify Objectives & Evaluation Criteria for Indicators (“Community definition of what is “getting better – what is getting worse”);
- Collect and compile data for select indicators that are being used in the CHA with local community; and,
- Integrate Indicators with Management Options and existing Agreements.

The community has provided a considerable number of suggestions when it comes to indicators that can be measured to help describe the effect industry is having on Fort McKay culture. The Fort McKay CIT will be collecting information for a subset of the indicators for the Fort McKay Cultural Heritage Assessment (CHA).

The following section outlines some suggestions for Fort McKay to consider when selecting indicators for the Fort McKay Cultural Heritage Assessment and other initiatives.

Start by Monitoring the Effects that People Care the Most About

The most appropriate community-based indicators are linked to community values. *“Indicators arise from values (we measure what we care about), and they create values (we care about what we measure,)”* (Meadows 1998: 1).

In every community meeting/workshop, concerns related to hunting were the dominant theme. As a community of Hunters and Gatherers – “hunting” is linked to each of the core cultural values associated with the Fort McKay Cultural model. Fort McKay is motivated to discuss industry effects related to hunting because traditional hunting practices represent a tangible proxy for Fort McKay Culture at almost every level. Developing a comprehensive set of qualitative and quantitative indicators, that can accurately describe the cultural impacts that result when industry reduces opportunities to carry on traditional activities, may prove more meaningful to community members than collecting information on a range of distinct issues or concerns (e.g. two indicators for fishing, two indicators for trapping, two indicators for education, etc.). This approach will also help to ensure that appropriate qualitative indicators support the interpretation for some quantitative indicators.

Make Use of Existing Information

This study did not attempt to collect data for any of the indicators listed; however, data does exist for many of these. The Fort McKay IRC has begun to collect data for some indicators in their work related to the Community Plan

(2006) and Wellness Strategy (2007) and industry agreements (such as trapper compensation metrics). Annual reporting for the IRC may be able to provide some historical data in terms of the funding trends for cultural programs, community participation in industry-funded initiatives etc.

Government databases, environmental impact assessments and work carried out by CEMA (for example the Sustainable Ecosystem Working Group report: Terrestrial Ecosystem Management Framework, 2008), EIAs and RAMP will be useful sources of data. However, in terms of “cultural impacts”, the results of regional studies, academic research projects and environmental assessment and monitoring programs that have been undertaken in the region are quite varied. In the case of Fort McKay, there have been a large number of EIAs conducted in the region over the past 15 years. While these reports (listed in Appendix A), present common themes related to industrial development's impact on traditional land use, some socio-economic and archaeological indicators – there is very little consistency in terms of data, methodologies, and levels of community participation. Community input in terms of study design, setting study areas, describing and interpreting assessment results, setting impact rating and significance criteria is consistently low. Thus it is not surprising that there are considerable differences between the “impact ratings” found in some industry studies when compared to the views shared by community members over the course of this study. Using a consultative approach across a range of age groups will help the IRC evaluate how best to make use of existing information for cultural indicators.

Knowledge of existing data sets will help the IRC determine appropriate measures for each of the indicators. For example, will community members prefer to report their hunting activity in terms of units of time as:

- Days spent hunting;
- Number of hunting trips a year;
- Hours of hunting per trip; or
- A combination of this or other measures?

Thresholds and Measures

While recognizing the challenges that are associated with community participation in Fort McKay, it is the community that must decide what the various thresholds are for the selected indicators. Some individuals feel that for some of these indicators (such as those related to language, traditional foods, protocols and traditional knowledge) thresholds have already been crossed many years ago.

“There might be a worse but there won't be a better.”

(Fort McKay Workshop June 2009)

“It has already been past – we've got nothing left to make a living. What are you going to do? Just go back to McKay I guess.”

(On the way to Moose Lake 2002)

Others feel that although a traditional way of life and related cultural values may not ever be fully reinstated, Fort McKay culture, based on traditional values is still viable to a certain extent. They also believe that efforts to support traditional activities can help recuperate and strengthen some of the lost values that are still relevant to community well being in the current context.

Track What is Getting Better

When describing cultural change, there can be the tendency to define “culture” as “the way things were prior to 1960s” and to value all changes that depart from this pre-development phase as a loss. This is particularly common in Aboriginal communities where the traditional way of life is idealized and contemporary expressions of culture are devalued. This cultural loss approach, while potentially useful in retrospective impact study, can be potentially disempowering in the context of community development.

Identifying cultural resources or cultural capital that have been developed as well as those lost can provide a better understanding of the community in its contemporary context (see Berkes 1993).

Collect information from a Range of Age Groups

Effects related to culture are more complex, and are perceived differently, by different individuals and groups. (Berkes 1993, Deneiro 2007:267, PFI 2006, Natcher and Hicky 2002). Tiani (2001: 72) all support this view by noting that within any community, there generally exist several sub-groups with different and often contradictory interests.

This is true in Fort McKay. Community consultations with Fort McKay for various initiatives including the Fort McKay Community Plan (2006), and the work carried out in 2007 for the Fort McKay Asset Mapping Project (HEG 2007) reveal divergent interests between youth, Elders and many of the working adults in the community. Many youth in the community appreciate the opportunity and number of services that can be attributed to oil sands development, while Elders in general don't see anything good coming from industry. Using a consultative approach to collect data for qualitative indicators across a range of age groups will help to ensure that the information being collected is reflective of the entire community's situation. Perspectives from all sectors of the community should be considered when determining whether there is a net positive or negative effect.

“Being “better off” for A (20's): stories are nice, sure it would be nice to learn traditions, now that I am older it kind of matters; my baby is an individual, I am not going to force him/her to learn traditions; everything is changing and it is OK to me, anything as long as my son/daughter doesn't have to haul water; life just changes, so accept it.”

(Fort McKay Workshop September 2008)

“People talk about not being sick in the old days and now we are always sick. I guess that’s the pollution. Well for a lot of the old folks there is a longing; a sadness and longing to go back to the old ways. Well that longing; that’s a sickness too.”

(On the Way to Moose Lake 2002)

Community Feedback Loop

At community workshops, participants were told that their input would be considered by the Fort McKay CIT Team in the Fort McKay Community-Specific Cultural Heritage Assessment. The IRC also told the participants that this information would be used to help inform the design of long term community involvement into the monitoring or assessment program. Community members want to know how their contribution is making a difference.

Elders, hunters, trappers and a range of other community members regularly participate in industry-related consultation meetings. Despite these opportunities for engagement, community members feel like their concerns are being ignored. Commonly referred to as “consultation fatigue” – many community members express concerns related to, “A lot of talk and no action.” Given the relatively high levels of participation (on an annual basis), community members have a difficult time seeing how their input influences project-specific or regional decision-making.

“We got lots of problems and nothing ever gets done; we talk but nothing ever gets done. For all the damage, all the sorrows and miseries, what do we get out of it? We are surrounded by the oil companies. It is not right. We get pension cheques but it is not that much. Why with all the oil companies surrounding us, we don’t get compensated. We are getting sick from all this pollution. We can’t eat the fish from the river. We only fish in Moose Lake; we can’t fish in the Athabasca, or Ells River or any of those places.”

(Fort McKay Workshop June 2009)

At community workshops, participants were told that their input would be considered in the Fort McKay Community-Specific Cultural Heritage Assessment. In addition to the CHA, during community workshops community participants and the IRC discussed the value of collecting information for some indicators to:

- Track trends in various community programs and initiatives (success, funding, etc.)
- Provide context for future industry and government agreements or funding proposals related to land management
- Create political and social awareness related to community issues and concerns
- Share information about culture and the effects of development with community members
- Assisting local councils and land management agencies to consider the heritage concerns of Aboriginal people when making planning and development decisions

- Provide opportunities for Aboriginal Peoples to learn and express their culture, and supporting cultural revival, through the retention and transmission of cultural knowledge and practices, and repatriation

Community-based indicators are more than a tool for describing cultural and ecological change. They can become tools for ongoing learning and communication with the Elders and harvesters who hold and have ownership of this knowledge. The IRC could consider developing a communication strategy to share the results of this report with the community and that way support community participation throughout the CHA process and other initiatives that require community engagement.

It was suggested by workshop participants to develop a bulletin board in the Band office to describe in a graphic manner how community consultation and participation, in specific related to this study but also in general, is affecting the way the First Nation deals with external pressures. Explaining concrete actions that impact community quality of life is fundamental to keeping community interest and participation at a high level. It would also empower community members and enhance self-esteem.

When a system is extremely complex (such as culture) it takes trial, error, and learning to produce a serviceable set of indicators (Meadows 1998). Over time as this data is being collected, it will be important for the IRC to consistently check in with community members to interpret assessment results and make sure the indicators and related metrics are appropriate for measuring and describing cultural change.

Table 1 presents a list of suggested characteristics for indicators. While it is desirable that indicators count with all of these characteristics, it is not necessary for each of the indicators to comply with all of them.

**Table 1: Examples of Indicator Evaluation Criteria from a Review of 22 Publications
(In order of frequency cited)**

Indicators should	Source examples
Be easily measured	UNCCD, 1994; Breckenridge <i>et al.</i> , 1995; Mitchell and McDonald, 1995; Rennie and Singh, 1996; Abbot and Guijt, 1997; OECD, 1997; Scott-Villiers, 1997; Hamblin, 1998; Rubio and Bochet, 1998; Woodhouse <i>et al.</i> , 2000.
Be rapid to measure	Ten Brink <i>et al.</i> , 1991; Krugmann, 1996; CONCERN, 1996; Rennie and Singh, 1996; Dalal, 1997; Abbot and Guijt, 1997; Scott-Villiers, 1997; Hamblin, 1998.
Be sensitive to spatio-temporal change	Breckenridge <i>et al.</i> , 1995; Mitchell and McDonald, 1995; Zinck and Farshad, 1995; Abbot and Guijt, 1997; CONCERN, 1996; Dalal, 1997; Rubio and Bochet, 1998.
Assess trends over time and provide early warning of detrimental change	Rapport, 1992; Breckenridge <i>et al.</i> , 1995; Zinck and Farshad, 1995; Lawrence, 1997; Rubio and Bochet, 1998; Hamblin, 1998

Be cost effective	Breckenridge <i>et al.</i> , 1995; CONCERN, 1996; Krugmann, 1996; Rennie and Singh, 1996; Abbot and Guijt, 1997; Rubio and Bochet, 1998;
Be easy to understand and interpret	Mitchell and McDonald, 1995; CONCERN, 1996; Abbot and Guijt, 1997; Hamblin, 1998; Rubio and Bochet, 1998.
Be reliable and robust	Bellows, 1995; Dalal, 1997; Scott-Villiers, 1997; Hamblin, 1998; Rubio and Bochet, 1998.
Be representative of system variability and applicable over different regions	Bellows, 1995; Zinck and Farshad, 1995; Hamblin, 1998; Krugmann, 1996; Breckenridge <i>et al.</i> , 1995.
Be timely	UNCCD, 1994; Breckenridge <i>et al.</i> , 1995; Rennie and Singh, 1996; Abbot and Guijt, 1997; Scott-Villiers, 1997.
Be scientifically credible	SCARM, 1996; Dalal, 1997; OECD, 1997; Hamblin, 1998.
Be verifiable and replicable	UNCCD, 1994; Bellows, 1995; Abbot and Guijt, 1997; CONCERN, 1996.
Be consistent over time	Be consistent over time Breckenridge <i>et al.</i> , 1995; Bellows, 1995; Rennie and Singh, 1996; Dalal, 1997
Have social appeal and resonance	Ten Brink <i>et al.</i> , 1991; MacGillivray and Zadek, 1995; Abbot and Guijt, 1997; Rubio and Bochet, 1998.
Be policy relevant	Ten Brink <i>et al.</i> , 1991; Guijt, 1996 (in Rigby <i>et al.</i> , 2000); OECD, 1997; Rubio and Bochet, 1998; Woodhouse <i>et al.</i> , 2000.
Make use of available data	Breckenridge <i>et al.</i> , 1995; Hamblin, 1998; Rubio and Bochet, 1998
Be locally relevant	Ten Brink <i>et al.</i> , 1991; Mitchell and McDonald, 1995.
Be accurate	Ten Brink <i>et al.</i> , 1991; Abbot and Guijt, 1997.
Be free from bias	Bellows, 1995; Zinck and Farshad, 1995.
Be derived by the users	Guijt, 1996; Hamblin, 1998
Simplify complex phenomena	Pieri <i>et al.</i> , 1995 (in Rigby <i>et al.</i> , 2000)
Quantify information so that its significance is readily apparent	Pieri <i>et al.</i> , 1995
Facilitate communication of information, particularly between data collectors and users	Pieri <i>et al.</i> , 1995

Source: Reed and Dougill 2003:3

7 Bibliography (index)

INDEX: INDICATORS OF CULTURAL CHANGE (1960 TO 2009): A FRAMEWORK FOR SELECTING INDICATORS BASED ON CULTURAL VALUES IN FORT MCKAY

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APPENDIX A

**FMA Consultants (2008) DRAFT
Literature Review and Value Matrix for Fort McKay
Prepared for the IRC
September 19, 2008.**

Source	Issue/Concern/Impact**
Reference List A – Environmental Impact Assessments (Fort McKay)	
AMEC Earth and Environmental. 2004. Application to the Natural Resources Conservation Board and Alberta Environment together with an Environmental Impact Assessment for the Muskeg Valley Quarry. Prepared for Birch Mountain Resources Ltd. March 2004. Calgary, AB.	Land removed from use on RFMA #2006
	Impact to traditional users at cabin site (noise and traffic 24 hours a day)
	Loss of high traditional use plant capability land and high-risk ecosites
AMEC Earth and Environmental. 2004. Section 15: Traditional Land Use and Traditional Ecological Knowledge, Volume 3: Environmental Impact Assessment. Commercial Application for the Sunrise Thermal Project. Prepared for Husky Energy Inc. August 2004. Calgary, AB.	Effects of heavy metal and acid deposition on traditionally used plants
	Effect of air pollution on bird flyways
	Use of native and traditional plant species in reclamation
	Impact on traditional plants and medicines
	Impact on wildlife (high traditional value)
	Reclamation that can support wildlife
	Increased development and recreational use and resulting impacts on traditional use
	Space to conduct cultural and spiritual activities without disturbance
	Impacts to traditional plant harvesting, hunting, fishing, trapping
	Impacts to traditional use or sacred sites (cabins, burials, prime harvesting sites)
	Impacts to traditional lifestyle (quality, abundance and access to traditional resources)
	Access management (noise, traffic, changes to water, greater competition for resources with non-Native hunters)
	Lost opportunities for traditional use – ability to preserve or pass on traditional knowledge is decreased
Community wellness connected to traditional lifeways	

Source	Issue/Concern/Impact**
<p>AXYS Environmental Consulting Ltd. (AXYS) 2001. Traditional Land Use and Environmental Knowledge Study for the True North Energy's Fort Hills Oil Sands Project. Prepared for True North Energy. June 2001. Calgary, AB.</p>	Project contribution to cumulative impacts on opportunity to carry out traditional land pursuits in region
	Potential effects on traditional harvesting (operations and post-closure)
	Impacts Athabasca River, Steepbank River, Muskeg River and Kearn Lake; potential impacts to McClelland
	Impacts to areas along Athabasca River – highest traditional use
	Change to vegetation community composition
	Fragmentation of wildlife and vegetation species; introduction of new species; creation of new access <i>"Wildlife populations are mostly down in numbers. It's been a steady decline since the oil sands mines started, except for deer, and they've increased (pg. 13-20)."</i>
	Loss of opportunity and ability to practice traditional lifeways
	Loss of traditional lifestyles and cultural heritage
	Potential indirect effects to hunting opportunity to local trapper
	Deposition of heavy metals and acidifying compounds on traditional plants
	Effects of air pollution on bird flyways <i>"There has been a change in the way waterfowl migrate. The area around the McClelland Lake wetland complex used to receive hundreds of migrating waterfowl, but they don't any more (pg. 13-20)."</i>
	Increased fishing pressure associated with increased access
	Use of native species and traditional plants in reclamation
	Loss of medicinal plants
	Development impacts on wildlife (moose, rabbits, aquatic furbearers, grouse, waterfowl and squirrels)
	Ability for landscape to be returned to state sustainable for traditional use purposes
	Impact on traditional trap line holders of increased access and competitive land use <i>"The increasing population has resulted in theft, damaged property, personal conflict and decreased trapping success (pg. 13-20)."</i>
	Over-hunting pressures from increased access and sport hunting
Undisturbed space/areas for cultural and spiritual activities	
Retention of traditional ecological knowledge	
Project removal of traditionally used plants	
<p>Golder Associates. 2003a. Traditional Land Use Culturally Significant Ecosystems Analysis of the Jackpine Mine – Phase 1. Prepared for Shell Canada Limited</p>	<p>Removal of portions of culturally significant ecosystems (overall, large game and traditional plants)</p>

Source	Issue/Concern/Impact**
and submitted to Fort McKay First Nation. March 2003. Calgary, AB.	
Fort McKay Environmental Services (FMES) and AGRA Environmental. 1998. Traditional Land Use Study for the Shell Muskeg River Mine Project. March 1998. Fort McKay, AB.	Trap lines 1930s/40s – forced people into “areas limited by borders” (pg. 13).
	Fish from Athabasca River contaminated
	Development changing composition of big game animals in area (decline in caribou, deer increasing)
	Removal of Tar Island had big negative impact (summer fishing camp for centuries; most caught between Muskeg River Project area and Suncor tailings pond)
	Mines effectively remove areas from use by trappers and families; effects on trappers both “cumulative” and almost “exponential” (pg. 27).
	Bird populations are changing (e.g., magpies now present in area (never case in past); crows and ravens numbers have increased (due to increase in garbage); drastic decline in song birds; blue heron appeared in 1970)
	Breeding areas/water for ducks are disappearing
	Johnson Lake no longer has pike
	Athabasca River is polluted, lower and muddier and more difficult to travel
	More wind, weather warmer and generally more unstable
	More diseased trees (due to lack of water)
	Inadequate trapper compensation (damaged cabin, trap line and traps; lost productivity due to logging and seismic activity)
	Major concern for ‘health’ of trap line and continuation of lifestyle
	Berries covered with black and gray dust (attributed to air emissions; loss of harvesting ability)
Mining activities will result in major changes (physical, increased access, increased disturbance and disruption, increased noise, increased vandalism and theft)	
Fort McKay Environmental Services (FMES) and AGRA Earth and Environmental. 1997. Traditional Land Use Study for the Petro-Canada Oil and Gas SAGD MacKay River Project. January 1997. Fort McKay, AB.	Concern for traditionally used plants in area; impacts to fish and wildlife habitat
	Creation of new access that permits competitive land use in trap line areas
	Need for field-truthing and ground reconnaissance with involvement of Fort McKay members
	Need for ongoing consultation with community and trap line holders
BOVAR Environmental. 1996. Environmental Impact Assessment for	Decrease in moose populations (due to disturbance, increased in hunters and wolf populations)
	Concern for forest

Source	Issue/Concern/Impact**
the Aurora Mine. Prepared for Syncrude Canada Limited. June 1996. Calgary, AB.	Want employment, clean environment and ability to continue traditional land use practices
	Ensure productivity of fisheries (Moose, Buffalo lakes)
	Fish contaminated in major rivers
	Increasing access and hunting competition
	Mining contaminates air and water, and therefore fish, wildlife and plants
	Rights and concerns should be acknowledged and incorporated into development process
Golder Associates. 2002a. Traditional Land Use Environmental Setting Report for Jackpine Mine – Phase 1. Prepared for Shell Canada Limited. May 2002. Calgary, AB.	Animal population are down (pollution, noise, decreased food sources, increased hunting pressure from non-Native hunters)
	Trap line important for passing on traditional lifestyle; important place of retreat
Golder Associates. 2002b. Traditional Land Use Assessment for Jackpine Mine – Phase 1. Prepared for Shell Canada Limited. May 2002. Calgary, AB.	Loss of land (cultural transfer, current use, loss of future economic opportunities, maintenance of treaty rights)
	Noise, traffic and road dust
	Stream diversions
	Increased access
	Reroute of Canterra Road
	Cumulative effects <i>“The largest cumulative effect on the Fort McKay community is the gradual loss of the traditional lifestyle.... The belief that significant permanent impacts to the traditional way of life will take place as a result of regional development is a common theme.... There is genuine concern that eventually future generations will not have the choice of living a traditional lifestyle on their traditional lands.” (pg. 4-38)</i>
	Community considers permanent and irreversible impacts are taking place (loss of access to traditional lands)
	Wildlife moving away; less wildlife habitat
	Air emissions are health threat to wildlife and traditional users, odours
	Disruption to aquatic habitat (drainage, roads, cutlines)
	New access (increased outside competition, decreased animal populations, environmental degradation and vandalism)
	Inability to sustain traditional way of life (important economic implications – diet, lost income from trapping)
Transfer and maintenance of traditional knowledge, cultural integrity	
Golder Associates. 2007. Traditional Land	Lands removed from traditional use; RFMAs #587, 1790, 2156, 2676 currently unavailable for traditional use

Source	Issue/Concern/Impact**
Use Assessment Report for the Voyageur South Project. Prepared for Suncor Energy Inc. July 2007. Calgary, AB.	Cumulative impacts to traditional harvesting, fishing, hunting
	Loss of traditional use/land impacts ability to practice and pass on traditional lifeways
	Impact to sweat lodges (2), possible burial (not located)
	Increased access (vandalism to cabins, noise, recreational users, theft)
	Impacts to wildlife, less abundant
	Air quality ('black rain' with 'speckles')
	Loss of ability to practice traditional lifeways in future, negative social and psychological effects, increased potential for substance abuse, violence or vandalism
Golder Associates. 2003b. Traditional Knowledge and Land Use Assessment for the Suncor South Tailings Pond Project. Prepared for Suncor Energy Inc. December 2003. Calgary, AB	Noise impacts (wildlife disturbance, adverse affect on hunting and trapping, peace and tranquility on trap line)
	Loss of land for traditional use
	Changes in air quality (dust)
	Changes in water quality (seepage)
	Cumulative impacts from increased access (competition for resources, noise, traffic)
	Loss of traditional culture and lifeways
Golder Associates. 2002c. Traditional Ecological Knowledge and Land Use Assessment for the Horizon Project (Volume 3: Section 3). Prepared for Canadian Natural Resources Ltd. June 2002. Calgary, AB.	Effects of the project on existing traditional land uses (tourism, fishing, hunting, nutritional or medicinal plant harvesting, cultural use, outdoor recreation)
	Restricted access for trappers and other traditional users
	Virtual disappearance of caribou from region
	Decreased abundance in moose (related to increased traffic noise, increased access and recreational hunting, forestry clearing)
	Grizzly and cougars present (not present historically)
	Decreased opportunity for development of outfitting and ecotourism
	Changes in furbearer populations (lynx and wolverine populations down)
	Destruction of beaver habitat and lodges; recent decline in populations
	Near disappearance of porcupine from region
	Fish quality in region
	Dramatic decrease in fish populations (pollution, overfishing by recreational fishers)
	Fish no longer taken from Athabasca River
	Removal of trapping cabin and adjacent harvesting areas
	Impacts/removal of historic travel routes/trails
	Noise and traffic
Negative social effects	

Source	Issue/Concern/Impact**
	<p>Increased access (competition from recreational hunters, ecological damage, disrupts hunting and trapping)</p> <p>Respect for traditional users (asking permission, protocol, awareness of impact)</p> <p>Negative social and cultural effects on future generations; want to pass on TEK</p> <p>Poor communication with community members</p> <p>Negative economic impact due to loss of country foods</p> <p>Impacts to wildlife populations (competitive hunters, regional development)</p> <p>Development drives away furbearers</p> <p>Inadequate compensation</p> <p>Airborne pollution</p> <p>Removal of intense use cultural use ecosystems (substantial effects predicted)</p>
<p>Fort McKay Environmental Services (FMES) and AGRA Environmental. 1998. Traditional Land Use Study for the Mobil Oil Kears Lake Project. Prepared for Mobil Oil Limited. March 1998. Fort McKay, AB.</p>	<p>Removal of trap line areas from productive use</p> <p>Pike disappeared from Kears and Johnson Lakes (five years previous)</p> <p>Diseased trees around Kears Lake (lack of water related to clearing)</p> <p>Inadequate compensation for trappers</p> <p>Gray and black dust on traditionally harvesting plants (impedes harvesting, believed unsafe for use)</p> <p>Increased access (increased disruption, noise, and vandalism)</p> <p>Fair compensation for trappers</p> <p>Employ trappers in ongoing monitoring</p>
<p>Fort McKay Environmental Services (FMES) and AGRA Environmental. 1997. Traditional Land Use Study for the Lakeland Pipeline Project. Prepared for AEC Pipelines Ltd. January 1997. Fort McKay, AB.</p>	<p>Impacts to regional trails, cabin</p> <p>Impacts to furbearer, bird, and berry harvesting sites</p> <p>Potential impacts to moose migratory path</p> <p>Impacts to grayling in Poplar Creek</p> <p>Impacts to bird harvesting sites</p> <p>Need for field-truthing and ground reconnaissance with involvement of Fort McKay members</p> <p>Need for ongoing consultation with community and trap line holders</p>
<p>Conor Pacific. 1998. Traditional Land Use Assessment prepared for the Mildred Lake Upgrader Expansion Project. Prepared for Syncrude Canada Ltd. Calgary, AB.</p>	<p>No significant impacts predicted</p> <p>Potential acidifying effects from air emissions on plants used for food, medicine or spiritual purposes</p> <p>Potential overall cumulative effects to lake fisheries due to acidification; contamination of traditional fisheries resources</p> <p>Potential significant cumulative effects to wildlife with resulting effects to hunting and trapping opportunities</p>

Source	Issue/Concern/Impact**
	Increased access (roads, cutlines) leading to changes in wildlife populations
	Increased hunting competition and vandalism
	Decline in furbearer populations (previous 10 to 15 years)
	Decline in meat and fur quality
	Decrease in fish populations
	Fish in Athabasca River are contaminated (oily taste, deformed, soft flesh, strange colour in flesh)
	Gray and black material deposited on traditionally used plants
	Traditional food contamination
	Decrease in water quality (increased presence of algae, increased turbidity, decreases in water insects, disappearance of spawning areas)
	Decreased flow in Athabasca River
	Water levels in rivers getting lower (due to industrial activity)
	Trees under stress or diseased (altered drainage patterns related to industrial activity)
	Snow, river ice (yellowish, no good for tea) quality compromised <i>Pg. 10-15, from FMES 1996 – “tea made from snow forty miles from the (oil sands) plant site still contained oil</i> <i>Pg. 10-15, from FMFN 1994 – “the snow looks like you put pepper on it”</i>
	Increased traffic, increased road kill mortality for moose (one to two a year for project case, four annually for cumulative effects case)
	Increased hunting, poaching and backcountry recreational use will increase with human population increases
FMA Heritage Resources Consultants Inc. (FMA) 2006b. Fort McKay First Nation Traditional Ecological Knowledge and Land Use Report for the Northern Lights Project. Prepared for Synenco Energy Inc. November 2006. Calgary, AB.	Water pollution caused by air pollution
	High incidence of asthma and allergies among community members (related to air emissions)
	Local lake levels (removal of muskeg, use of underground water, impacts to McClelland fen)
	Removal of muskeg affects both water quality and quantity
	Low water levels have negative effect on wildlife <i>“Without water, everything will dry out. Nothing can live without water.” (F1, pg. 27)</i>
	Inflow needs assessment numbers are too low for Athabasca River, withdrawals should be capped
	Drastic decline in bird populations (grouse, red-winged blackbirds, geese) <i>“There used to be so many birds, ‘it was like the ground was moving. Now nothing.’” (F1, pg. 27)</i>
	Caribou have disappeared from area (since 1950s)
	Bear populations in region have declined as result of over-hunting, sport hunting
	People are no longer able to get their fish from Athabasca River

Source	Issue/Concern/Impact**
	Thorough TEK plant surveys should be conducted prior to disturbance to identify presence of medicines and aid in reclamation
	Removal of muskeg (negative impacts to plants and animals that feed there)
	Impacts to berries (disturbance, air pollution)
	McClelland Fen 'special' area (medicines)
	Current reclamation practices inadequate (not holistic or ecosystem-based approach, limited to grass and trees, does not include animals or medicines, soils stockpiled too long)
	Increased access to undisturbed areas
	No areas left for community picnics
	Sport hunting of bears, bear baiting with beavers
	Appearance and aesthetics of oil sands projects on landscape <i>"It's really sad. It's like the land has been raped."</i> (F4, pg. 29)
	Traffic and student safety on Hwy 63
	Human health (increase in allergies, asthma and other respiratory conditions; increase in cancer and diabetes, shorter lifespans) <i>"I am not going to live to be like my grandparents. People die younger. I'll never see 70. Years ago, people used to live to 70, 80, 90."</i> (F4, pg. 30)
	Existing cumulative impacts to traditional land use are significant <i>"Our Indian way of life is already destroyed. It was perfect for me. What more can they do but destroy it more? ... They don't care whether we fall or not fall. It's no use to talk about it. They keep going full swing."</i> (F1, pg. 36)
	Traditional users travel and access blocked by development (locked gates, security gates, rude treatment by security) <i>"We're being abused by them and nobody's doing anything about it...this is our land!"</i> (F1, pg. 31)
	Development restricts hunting areas (safety signs against shooting)
	Decrease in wildlife abundance affects hunting (birds, geese)
	Vandalism (cabin set fire, broken into, traps and snares destroyed); no compensation for damage
	Protection of remaining berry-picking area (RFMA #2137)
	Potential impacts to two gravesites identified in FMFN 1994; need to be left undisturbed
	Loss of traditional values (sharing of meat, loss of bush, freedom, traditional way of life)
	Consultation is not adequate (not listened to, need to be treated as equals) <i>"There's no benefits because it's all taken. What is taken cannot be given back. There's no give and take, there's no compromise.... Helping you is not helping me."</i> (F4, pg. 36).
	Inadequate compensation for loss of livelihood
	Waste management around construction sites and development
	Potential for McClelland Lake to be negatively affected by development

Source	Issue/Concern/Impact**
	(water withdrawals, stripping of muskeg, forestry)
<p>AXYS Environmental Consulting Ltd. (AXYS) 2004. Historical Resources, Traditional Land Use and Resource Use Environmental Setting Report. Prepared for Albian Sands Energy Inc. Muskeg River Mine Expansion. Calgary, AB.</p>	Trappers would like to be able to continue their activities in future
	Feeling of helplessness that anything can be done to slow or halt development
	Declining moose populations; moose main traditional food
	Negative impacts of altering drainage and creek flow
	Traffic and noise (airport, roads, dyke, bird canons, trucks dumping)
	Lakes used for fishing will be removed by project
	Impacts to water levels in Muskeg River (good for moose)
	Vandalism (traps and snares, drunk drivers, property damage, break-ins)
	Impediments to trapper traditional use (disrespect by security personnel, prevented from setting traps/snares, not appropriately notified or consulted, reclaimed areas no good, access, aesthetics)
	Reclamation cannot restore land back to original condition
	Reclamation useable for traditional lifeways not possible during lifetime of current users
	<p>FMA Heritage Resources Consultants Inc. (FMA) 2005b. Traditional Land Use Study for the Imperial Kearn Lake Project. (Section 6). Prepared for Imperial Oil. July 2005. Calgary, AB.</p>
Consultation materials need to be in appropriate language	
Canadian toads have disappeared	
Meaningful consultation (timing, too late in process, ineffective for change, provision of adequate and detailed project information)	
Uselessness of participation in traditional land use studies for development	
Access management	
Theft and vandalism, property damage on trap lines	
Fragmentation of traditional use areas and travel routes	
Need to relocate cabins	
Importance of muskeg (traditional uses, berry habitat, water filter)	
Reclamation cannot restore landscape integrity or culturally significant areas (medicines)	
Respect for animals (bear sport hunting, use of all animal harvested)	
Noise disturbances stress wildlife (changes taste of meat, leads to decreased abundance)	
Disruption of medicinal plant harvesting areas	
Timber salvage for Elders	
Disruption of McClelland Lake and Fen	
Impacts to water (pollution, drying, loss of riparian habitat, snow and ice no longer good for drinking water)	

Source	Issue/Concern/Impact**
	Pollution and its effects on plants and animals (abundance, vigour, health, taste of wild foods – bear meat, fish, moose)
	Decrease in presence of birds; one type of river swallow has completely disappeared
	Pollution contributes to climate change (related to decrease in berries and birch trees, health of spruce trees, and absence of caribou in region)
	Changes in physical health related to pollution (allergic reactions – itching skin, unusual rashes, burning in eyes, bad odours, increased incidence of cancers)
	Physiological and spiritual health (helplessness, community fatigue, surrounded by development)
	Removal of portions of historic trails
	Negative impacts to trappers (removal of land, increased access – increased noise, disturbance, theft and vandalism)
FMA Heritage Resource Consultants Inc. (FMA) 2005c. Traditional Land Use Report for the Petro-Canada MacKay II Project. September 2005. Calgary, AB.	Impacts to beavers ('healers of the land'; maintenance of water on the land)
	Water quality and quantity (water levels lower, muskeg drier, no longer safe to drink from local water sources)
	Air pollution (yellow stuff on surface of water, black stuff in snow pack layers, greasy and sticky stuff on meltwater pots)
	Wildlife presence, abundance and health (disappearance of porcupine, deer, less frogs, beavers and rabbits dying off, less ducks, chickadees, robins)
	Impacts to traditional foods (oily film on blueberry plants, fish from Athabasca and other water bodies close to Fort McKay are sometimes deformed or have worms)
	Decrease in moose abundance (clearing increases access, removes habitat, moose like cover)
	Pollution deposited on plants and eaten by moose, beavers and other animals
	Increased access (competition with recreational hunters, controlled access impedes traditional use)
	Noise and traffic (disturbs peace and quiet at cabin, scares animals away, unsafe drivers, exhaust fumes)
	Dust deposition on vegetation (water muddy when wash berries, moose browse)
	Hydrocarbon and chemical spill management
	Forestry contributes to ineffective reclamation
	Cultural change linked to changes on land, loss of traditional lifeways
	Feelings of hopelessness, powerlessness
	Consultation (timely, maps in notification packages confusing)
Protection of salt lick near project lease	
Project beaver management techniques	

Source	Issue/Concern/Impact**
	Impact of underground water withdrawals on surface water and muskeg
	Compensation does not address future generations
	Cumulative effects (traditional use already circumscribed, affects culture and wellbeing of traditional users, decreased animal abundance, loss of control over management of traditional lands, negative psychological effects)
FMA Heritage Resources Consultants Inc. (FMA) 2005a. Traditional Land Use Report for the Deer Creek Joslyn SAGD Project. February 2005. Calgary, AB.	Animal populations in area have almost disappeared (caribou, elk, bears, moose and buffalo); severe decline in grouse and rabbit populations, berries and fish less abundant as well
	Water levels lower than at any time in traditional memory (Ells, McKay, Athabasca)
	Ells River important for furbearers, moose and fish; should remain intact
	Current reclamation practices are ineffective (grasses should not be used, and land should not be reclaimed for the forestry industry) <i>"It cannot put the 'land back the way it was.'"</i> (pg. 28)
	Erosion of traditional social structures and culture (youth losing respect for Elders, no one visits, lack of respect and lot of anger and jealousy amongst community members, painful to talk about, negatively impacts self-respect)
	Loss of land and traditional way of life <i>"The land means more than money. No amount of money can replace that way of life."</i> (James Grandjambe, pg. 28)
	Question value of traditional land use work for impact assessments when damage already done
	Blocked access on trap line (trails blocked, no trespassing signs)
	Communication with developers difficult (oil and gas and forestry blame each other)
	Halt water withdrawals from Moose (Ells) River, (Moose (Gardiner) Lake is source
	Youth suffer from substance abuse, alienation from traditional ways
	Difficult to practice traditional lifeways due to loss of berries, moose, clean water, fish, rabbits, grouse, traditional medicines
	Bridge over Ells River, road to Moose Lake
	Trapper compensation is grossly inadequate given current level of development and loss of traditional livelihood
	Inadequate consultation (regular, detailed and in-depth community meetings needed, competent interpreters required, consult directly with trappers)
Project safety measures	
Proximity of project to community calls for close work with McKay for project planning	
FMA Heritage Resources Consultants Inc. (FMA) 2008a. Fort McKay First Nation	Consultation should include direct meetings between trappers, Advisory Group and senior PetroCan representatives
	Respect and compassion should be paid to Elders and senior trap line holders; development has been traumatic for them

Source	Issue/Concern/Impact**
<p>Traditional Knowledge Report for the Petro-Canada Forth Hills Oil Sands Project Application Amendment. Prepared for Petro-Canada, Calgary, AB.</p>	Farewell ceremonies should be held on land before projects proceed
	Impacts to local water bodies (project removal of Fort Creek, McClelland Lake basin, decreasing water levels in Athabasca River)
	Compensation lake considered 'dead water'
	Additional field reconnaissance is required in area for traditional plants (contribute to Ganter study)
	Developers apathy towards traditional use sites
	Cabins will need to be relocated
	<p>Animal populations decreasing because of development <i>"We have no animals. Before, when you'd drive, you'd see animals along the highway. Now, none. ...All that equipment is pushing animals away. It's everywhere. There's a lot of activity out there. ...When they've destroyed everything – air, water, trees. When will they realize what it's really worth?"</i> (FM3, pg. 17).</p>
	Beaver management plans should be improved (conduct population counts in spring, harvest before winter, discuss and give first right of refusal to trap line holder)
	Requirements for traditional users (training, drug and alcohol testing) to harvest in their own their traditional territory unreasonable (excludes mine sites)
	Access management (traditional access routes now unsafe, blocked trails and hunting grounds)
	Traffic (Hwy 63 unsafe, community emergencies and transport)
	Availability of medical care in Fort McMurray
<p>FMA Heritage Resources Consultants Inc. (FMA) 2008b. Fort McKay First Nation Traditional Knowledge Report for the Parsons Creek Resources Project Environmental Impact Assessment. Prepared for Graymont Western Canada Inc. and Inland Aggregates Ltd. Calgary, AB.</p>	Dust and visibility along Hwy 63
	Sulphur dust and odours
	Air pollution (poor berry production, liver problems in wildlife)
	Water quality (project water management, seepage)
	People in Fort McKay told to stop drinking water from Athabasca River in 1960s
	Water levels in Athabasca so low river is difficult to navigate
	Overall wildlife populations have declined drastically, with exceptions (porcupine disappeared, rabbits reappearing after 30 years, deer and coyote have increased dramatically)
	Spots on livers of rabbits and moose
	Animal behaviour erratic (marten and moose)
	Moose and beaver habitat on lease (marshy areas and sloughs, moose calving grounds on islands in river, seasonal movement corridor across Hwy 63 and lease)
	Decrease in berry abundance attributed to industry emissions
	Reclamation should be back to natural state, good habitat for moose beaver,

Source	Issue/Concern/Impact**
	not recreational use
	Management of project traffic
	Traditional users feel like intruders on their own trap lines (stopped by industry workers, rapid increase in new cutlines and roads make it easy to get lost)
	Water levels in Athabasca so low it is difficult to navigate
	Fort McKay members hunt moose on northern portion of lease
	Synchrude and Suncor leases are where most heavily used hunting grounds were
	Bear meat is no longer safe to eat; bears eating garbage
	Métis man in Fort McKay formerly held trap line RFMA #1790; government regulations forced him to sell the trap line; a trapper could not keep his line if he was employed full-time
	Cabin site was vandalized at time of field trip
	Berry production has decreased substantively since oil sands development began (berries along McKay River, chokecherries, saskatoons and pin cherries along Athabasca)
	Meaningful involvement in regional oil sand approvals and development
	Inadequate compensation
	Level of poverty in Fort McKay
	FMA Heritage Resources Consultants Inc. (FMA) 2008c. Fort McKay First Nation Traditional Knowledge Report for the Jackpine Mine Expansion Project & Pierre River Mine Project Application for Approval. Prepared for Shell Canada. Calgary, AB.
Muskeg River diversion of grave concern (fish spawning, fishing – mountain whitefish, clean, one of last left, overall water levels)	
Medicines around Kearn Lake (construction of dyke)	
Overall decrease in berry production regionally	
Protection of cranberry patch on Fort Hills lease	
Quality of traditional foods (moose drinking water from Athabasca River, fish, need study)	
Fish in Athabasca River contaminated (warts, consumption limits)	
Presence of gravesite on Pierre River lease (need to be protected); sweat lodge near Muskeg River	
Disruption to cabins (relocation, vandalism, traffic, noise, break-ins, theft)	
Potential reduction in travel time to cabin (Pierre River Mine bridge)	
Consultation practices and historic trapping areas	
Access management (security, disorientation due to rapid pace of clearing, travel time increased, new bridge)	
Disruption to historic trails	
Inadequate consultation and compensation (powerlessness, other trap line holders and users, mistrust, lack of respect, been lied to)	

Source	Issue/Concern/Impact**
	<p>Loss of traditional values related to cumulative effects on land, and addiction issues <i>“For generations, people just took what they needed from the land. Now it will all be gone in one generation because of the oil companies.” (FM07, pg. 35).</i></p> <p>Air pollution affects human health, water quality, quality of life (green haze, blue smoke, yellow stuff, bad odours, coming from all directions now)</p> <p>Removal of muskeg, burying with overburden</p> <p>Pollution in Athabasca River (tar in river, rotten ice, Lake Athabasca is filter)</p> <p>Water withdrawals from Athabasca River (river too low, no more water should be taken)</p> <p>Decrease in overall water levels (Kearl Lake, Wapusu Creek, creeks coming from Birch Mountains, MacKay River)</p> <p>Diversion of Muskeg River and dyke around Kearl Lake will have negative impacts on wildlife (otter, beaver, kingfisher)</p> <p>Marked decline in overall wildlife populations (foxes, coyotes, squirrels)</p> <p>Impact of oil sands on moose habitat and movement</p> <p>Bear management (sport hunting, winter clearing and dens, bear territory)</p> <p>Beaver management (blowing of dams with dynamite, no notification)</p> <p>Grayling sensitive to disturbance, do not use Muskeg River any more</p> <p>Compensation lakes are not good for traditional use</p> <p>Regional fish health (warts, deformities, smaller in size)</p> <p>Impacts of clearing on McClelland Lake</p> <p>Noise impacts (wildlife, Hwy 63 like ‘airstrip’)</p> <p>Increase in recreational use (intrusions into traditional areas, noise and traffic, users under the influence, safety, trespassing, vandalism, lack of awareness of traditional users)</p> <p>Reclamation (decades before reclaimed, bare minimum, cannot restore, toxic materials left behind)</p> <p>Human health impacts from pollution (traditional foods and water sources no longer safe, feeling sick, decrease in immunity, deaths from rare cancers, sense of well-being, surrounded by development, sense of helplessness) <i>“We’re surrounded by all these oil companies and they’re slowly going to exterminate all of us.” (FM03, pg. 44)</i></p>
<p>FMA Heritage Resources Consultants Inc. (FMA) 2006a. Traditional Ecological Knowledge and Land Use Report for the Joslyn North Mine</p>	<p>Traditional food quality (moose, fish, beaver, berries)</p> <p>Human, community health (asthma, cancer). <i>“Pollution is killing everyone. People are getting sick – like cancer – and now young kids have asthma (#10, pg. 33).”</i></p> <p>Noise and traffic</p> <p>Decreasing wildlife abundance (moose, bear, porcupine, rabbits and chickens)</p>

Source	Issue/Concern/Impact**
Project. Prepared for Deer Creek Energy Limited. January 2006. Calgary, AB.	Loss of traditional knowledge
	Access to traditional areas (security personnel, firearms restriction, travel distance)
	Sport hunting (bears)
	Vandalism of cabins
	Hunting competition
	Discriminatory hiring practices <i>It is like "peeling their own skin to try and hire somebody native from Fort McKay here. They bring in their own white people from the outside (#2, pg. 39)."</i>
	Increased voice/participation in regional decision-making (EIA approval process)
	Industry relations, consultation (first communication between proponent and community, not consultants and community; have interpreters present; smaller group meetings)
	Cumulative effects, level of development <i>"I don't want them anymore. There is enough going on here right now, enough to kill us all off (#2, pg. 40)."</i>
	Poor berry quality, production
	Jackpine dying
	Reclamation inadequate (never muskeg or berries)
	Decline in moose, rabbit, porcupine, bird, bear, fox, fisher populations
	Fish with worms
	Low water levels in Athabasca River
	Poor quality drinking water (in McKay)
	Water quality in (Red) MacKay River
	Poor air quality (pollution, changes sunburn, "greasy" (#9, pg 44) air, "rotten egg" (#2, pg. 44) odours)
	Project proximity to community
	Removal of camping at mouth of Moose (Ells) River
	Removal of berry-picking, hunting area
	Removal of parts of Moose Lake trail
	Potential negative impacts to town drinking water source (Ells River)
Removal of trap line from potential use	
Community drug and alcohol abuse	

Source	Issue/Concern/Impact**
Reference List B – Fort McKay Community Reports	
Fort McKay First Nation. 2006. Fort McKay Community Plan: 'Our Community Our Future' A Resurvey. Presented to Chief and Council. October 2006. Fort McKay, AB.	Availability of health services and programs
	Parenting support
	Alcohol and drug abuse
	Division and conflict in community
	Education and training
	Jobs and careers
	First Nation laws and administration
	Community infrastructure
	Culture and retention
	Recreation programs and facilities
	Fort McKay Industry Relations Corporation (Fort McKay IRC). 2007. A Proposal for a Fort McKay Community Health and Wellness Strategy. Approved by Chief and Council. May 2007. Fort McKay, AB.
Air quality/odours	
Noise	
Traffic	
Safety and security	
Water quality	
Housing	
Fort McKay Industry Relations Corporation. 2008. Healing the Earth Strategy. Draft 5. August 2008. Fort McKay, AB.	
	Encroaching non-Aboriginal population
	Retain – protection of land; identify sensitive or critical areas
	Retain – conserve healthy populations of fish, animals and plants
	Retain – Keeping Clean Areas Clean – air and water
	Reclaim – restore to pre-disturbed state
	Improve – protection of wildlife populations
	Improve - technology
Improve – environmental management	
Offset – alternate traditional use areas and/or opportunities	
Reference List C – Regional Reports	
TP Management Services Ltd. And Cathy Goulet Consulting. 1998. An Aboriginal Perspective on Environmental and Socio-economic	Trappers - loss of livelihood (fewer animals)
	Trappers – loss of lifestyle and heritage
	Trappers – fewer trap lines available (taxation and costs, government's imposition on fur industry)
	Trappers – lack of consideration for trappers and trap lines (theft and vandalism)

Source	Issue/Concern/Impact**
Cumulative Effects on Aboriginal Communities within the Regional Municipality of Wood Buffalo. Prepared from Cumulative Effects Workshop, February 5 th and 6 th , 1998.	Trappers – lack of communication from industry
	Trappers – loss of independence
	Trappers – loss of traditional knowledge and values
	Trappers – displacement of wildlife
	Trappers – road development leads to loss of ability to trap
	Trappers – noise and air pollution
	Trappers – discouragement
	Trappers – logging and hauling
	Trappers – relocation of trap lines and cabins
	Trappers – loss of trap lines to outsiders
	Trappers – more competition for fewer animals
	Land – loss of medicinal plants
	Land – increased access
	Land – loss of traditional knowledge
	Land – loss of access to traditional lands (water levels on the Delta, leases and privatization)
	Land – erosion of land from logging and population growth
	Land – changes in plant life (leaves, mosses)
	Land – fallout polluting land
	Land – quality and usage of land after development and leases
	Air – increased sickness (asthma, cancer)
	Air – airborne pollution
	Air – noxious odours
	Air – acid rain
	Air – air quality has impacted vegetation, animals, people and the water
	Air – smoke, smog
	Air – changes in flyways for migratory birds
	Water - effluents
	Water – quality and amount of ice
	Water – purity of water
	Water – snow discoloration
	Water – drop in water levels
	Water – fewer bugs and ducks

Source	Issue/Concern/Impact**
	Water – ducks in sewage lagoons
	Water – fish with disease and deformities
	Water – garbage settling on bottom of waterways
	Water – overpopulation of beavers
	Water – sulfur and coke runoff into water
	Water – radiation from Uranium City into Lake Athabasca
	Water – change in water flow patterns causes flooding, recessions and change in plant life (dyke at Snye, Bennett Dam, Cree Creek)
	Water – silt increase from logging and development
	Water – smell and taste
	Wildlife – fewer animals (easier access from roads, increased human population and noise pollution = less moose)
	Wildlife – more disease (deformed moose organs)
	Wildlife – muskrat dying, beaver overpopulation
	Wildlife – few ducks
	Wildlife – change in migration patterns for animals and birds (logging, pipelines)
	Wildlife – buffalo dying from starvation due to less grass available
	Wildlife – fewer wolves due to less big game
	Wildlife – bears not as fat
	Wildlife – need to preserve land for potentially extinct animals and birds
	Wildlife – outfitters taking too many bears of all sizes
	Wildlife – fewer porcupine
	Wildlife – fewer bird species
	Wildlife – fewer foxes and coyotes even though lots of rabbits
	Wildlife – outfitters impacting trappers (fewer animals, ruining trails, polluting areas, no consultation with trappers, lack of respect for trappers)
	People – loss of traditional livelihood
	People – loss of knowledge and values
	People – more disease
	People – not maintaining infrastructure
	People – anger, frustration
	People – lack of communication with grassroots people
	People – lack of education
	People – loss of lifestyle

Source	Issue/Concern/Impact**
	People – increase in alcoholism, family abuse and other crime related activities
Dersch, Ave and C. Dana Bush. 2008. Identifying Traditionally Used Plants in the Regional Municipality of Wood Buffalo. Prepared for the Cumulative Effects Management Association. June 2008. Calgary, AB.	Fort Chipewyan (ACFN, Métis Local 125) - quality of traditional food and medicines affected by industrial activity to south, falling water levels affect accessibility and availability of plants
	Fort McKay – significant losses of plant collecting areas, harvesting areas contaminated, areas surrounded by development and inaccessible, reclaimed areas not suitable for picking
	Fort McMurray First Nation – harvested areas removed or made inaccessible by development
	Métis Locals 2020 and 780 – harvesting areas destroyed by development
	Chipewyan Prairie Dene First Nation – decline in accessibility, availability and quality of traditional plants; land, water, animals and plants have already been destroyed beyond repair
	Métis Local 193 – decrease in harvesting areas due to development

Notes:

- 1) * Quote is from Dēnesuliné Declaration of Self Determination
- 2) ** For the most part, observations on existing or baseline conditions are not captured in the 'Issue/Concern/Impact' column. Only information regarding development impacts or changes over time is included.

APPENDIX B

Cultural Components

Figure A1: Cultural Components is used to illustrate the primary components of Culture; these components are used to describe the ways in which people experience culture. The four components are:

- **Self** (individual identity and awareness and relationship with one's own self),
- **Community** (awareness and relationship with the community as a social unit),
- **Land** (awareness and relationship with the physical environment, including non-human others), and
- **Creator** (awareness and spiritual relationship with the Creator and ancestors):



Figure A1: Cultural Components (adapted from NZMC, 1996)

1.1.1 Self

Self, as a Cultural Component, refers to the understanding of ones' own being; how a person makes sense of his/her surroundings. Understanding of ones' self is mediated through culture. Cultures develop through communication and an internal process of interpretation of objects. What is essential to communication is that symbols arouse in one's self what it arouses in the other individual. The other essential thing to communicate is interaction. In other words, communication relies on interaction among people to evoke the meaning of cultural symbols. In that sense, understanding of one's self is culturally mediated as objects and symbols are understood through a process of mutual identification.

As Charon (1979:54) explains, "humans act not toward a world out there but rather toward a world defined by others through symbolic communication". Symbolic Interactionism is helpful to understand how meanings are formed and affect cultures. It is based on two main concepts: a) symbols, that are used to represent whatever people agree they should stand for, and b) interaction, defined as "mutual social action" Charon (1979:130).

Charon (1979:38) notes that objects take on meaning for individuals as those individuals interact with others and therefore are "social objects" because although "objects may exist in physical form... for the human being, they are pointed out, isolated, catalogued, interpreted, and given meaning through social interaction". In that context, Charon (1979:54) explains, "humans act not toward a world out there but rather toward a world defined by others through symbolic communication". Thus, people's actions are mediated by culture.

Since an object may have different meanings for different individuals, it may be in essence a different object. For example what is a sacred object with specific powers or value for one, may be a piece of wood for someone else. The way people interact with the object may be completely different. The context in which an object is interpreted and the standpoint of the interpreter are factors in determining the meaning of the object. According to Blumer (1969:11), "[t]he meaning of objects for a person arises fundamentally out of the way they are defined to him by others with whom he interacts", and therefore objects may have the same meaning for groups of people through a process of mutual indication. Through that process the assumptions and rules that govern a community (culture) are developed. However, Blumer notes that the interpretive process is an internal process carried out by the individual; his/her background, experiences, knowledge and understanding of the world out there is as much a social process as an individual one.

Identity has an element of awareness of one's self as the interpretive process is an internal process that is determined by the way in which the person relates to objects, and a social element explained in the following section.

1.1.2 Community

Identity is about "who we think we are" (Jagtenberg and McKie, 1997:149), and a group's identity is based on a mix of shared values, memories, myths and

traditions that allow the members of the group to recognise themselves and others.

The fundamental function of self-identification as a member of a community is to satisfy individual and collective needs of a sense of security. Membership in a community provides emotional safety and reinforces a sense of belonging. Self-identification with a particular group can only be understood and developed by comparison to others. Language, dress, and ritual are ways in which people separate “we” from “they”. Cultural expressions reinforce members' self-identification with a group and promote group cohesion. Ways in which people of Fort McKay speak, dress and conduct cultural activities are actions that were discussed during the CHA. In this way, community members informed the model and ultimately expressed information about impacts of development activity on their culture.

According to McCabe (1998) “Identity is reconstructed and recreated in and through cultural practices that are not part of a static inventory with fixed meanings but elements of an ongoing dialogue responsive to the demands of both past and present”. In other words, collective identity modifies over time taking into consideration a link common experiences in the past with the needs of the present to attain common objectives.

Spreight (1968) attributes community cohesiveness to integrative forces that emerge from sharing a common cultural background. Community solidarity is promoted by feelings of belonging and self-identity. Cultural expressions reinforce members' self-identification with a group and promote group cohesion.

1.1.3 Land

Culture is intimately related to the physical environment where it develops. According to Horvath et al (2001), First Nation's relationship to the land is an integral part of their culture and spirituality. This sentiment has been echoed many times by the people of Fort McKay.

Gottschalk (2001) argues that sense of selfhood of societies and individuals as part of social entities has an “ecological dimension”. According to Gottschalk we all experience ourselves in relationship with an ecosystem and we express ourselves in an interaction with a web of connections with human and non-human others. Aboriginal people, experience the “ecological dimension” of their sense of selfhood in close relation with wilderness and the natural environment.

McCabe (1998) suggested that cultural components such as attitudes, beliefs, values, actions and potentialities that people can imagine and propose, are shaped by the images available in the landscape. Landscape is a cultural production fashioned from the physical settings affected by culture. Simultaneously, landscape is affected by culture. Hirsch (1995) defines landscape, from a phenomenological perspective, as the relationship between two poles of existence of any cultural context: “foreground” and “background”. The foreground is the actuality of everyday life or ‘the way we now are’, while

the background is the perceived potentiality of 'the way we might be'. From this perspective the physical aspect of landscape is understood in a social context and is subordinated to culture. As long as people attempt to realise in the foreground what can only be a potentiality and therefore in the background, the production and modification of landscape is a continuous process.

Culture is dependant at least partly, on people's perceptions and interpretations of the physical environment. Similarly people's perceptions and interpretations of the physical environment depend on their culture. In that sense culture and the physical environment are at all times influencing each other. Landscapes are constantly being created and re-created in this process. The images available in the landscape are used for communicating and passing information about ancestral past, making the landscape, as noted by Morphy (1995), integral to the message. Interaction with the landscape is then part of the process whereby components of the cultural structure are reproduced.

The way in which people experience landscape representations is fundamental for territorial identity and geographical understanding (McCabe, 1998). According to McCabe, 'sense of place' is formed by the accumulation of those experiences through time and landscape variation.

Hay (1998) suggests that people attain a sense of security by being insiders of a place through birth and/or long residence. His research, using place as a common frame of experience for social interaction, shows that ancestry in the location tends to increase the sense of place for residents of the area.

Shared moments in "commonplaces" are used as common reference in which shared feeling for already shared circumstances create a collective identity (McCabe, 1998). As Thrift (1997:160) noted, places are inexorably linked to identity: "places form a reservoir of meanings which people can draw upon to tell stories about and thereby define themselves" (in McCabe, 1998).

Additionally, collective identity of Aboriginal peoples is rooted in the land as ancestral beings and past events are fixed in the land and become timeless reference points to which emotions of current people can be attached. Time is subordinated to space as the ancestral beings and past events 'turn into' the place. According to Morphy (1995:188) "To become a reference point, the ancestral journeying had in effect to be frozen forever at a particular point in the action, so that part of the action became timeless. Place has precedence over time... Time was created into place... Whatever events happened at the place, whatever sequence they occurred in, whatever intervals existed between them, all becomes subordinate to their representation in space... What remains is the distance between places rather than the temporal distance between events.

Aboriginal people experience sense of place in a very profound way. While sense of place supposes a separation between self and place that allows the self to appreciate the place, "rootedness" means being part of the place (Hay, 1998). The bond between Aboriginal people, the plants, animals, landscape and local spirits was considered indissoluble and so land could not be 'bought' or 'sold'. What is more, the human/land link was timeless; it was established prior to

birth and continued after death. It is frequently said of the Aboriginal people "that they do not own the land, the land owns them". (Mercer 1975:130)

1.1.4 Creator

Spirituality is understood as a condition that surpasses one's physical existence and in one form is also independent from it. Spiritual matters are thus those matters regarding humankind's ultimate nature and meaning, not only as material biological organisms, but also as beings with a unique relationship to what is perceived to be beyond the bodily senses, time and the material world.

Recent philosophical, sociological and psychological research has shown that human beings search an inner means of constructing self-identity. Both religious and secular circles are convinced that this inner means of constructing one's identity can be found in spirituality. They consider spirituality as a method of self-development preventing one from fragmenting into numerous 'subidentities' (Hense, 2003).

According to Cajete (1994), in traditional North American Aboriginal life, the orienting foundation of Indigenous knowledge and process is spiritual. "It is the spiritual that forms not only the foundation for religious expression, but also the ecological psychology underpinning the other foundations (Environmental, Affective and Communal).

APPENDIX C

Appendix C: Summary of Stressors affecting Fort McKay Culture

Historical Overview

Pre-1960

Government Policy related to:

- Treaty 8 and creation of Indian Reserves
- Shift in political structure (i.e. "Chief and Council" instead of matriarchal family groups and the tradition of delegating leadership based on specialized knowledge and skills)
- Residential/missionary school
- *Natural Resources Transfer Act (NRTA)*, Registered Fur Management System, provincial government policy related to forest and wildlife management and industrial mineral exploration and development

Other Stressors:

- Increased populations and community contact with non-Aboriginal people within traditional territory
- Introduction to seasonal wage labor

1960s

Stressors

- Mandatory school attendance in Fort McKay or residential school in Fort Chipewyan
- Family allowance and other social assistance based out of Fort McKay
- Increased populations and community contact with non-Aboriginal people within traditional territory
- Great Canadian Oil Sands (GCOS)
 - Destruction of Tar Island and lands around the Steepbank River – Athabasca River
 - Permanent road to Fort McMurray
 - "Bridge to Nowhere"
- Increased participation in seasonal and full time wage economy (e.g. summer fire fighting, work at GCOS, logging/mill work)
- 1967 WAC Bennett Dam (effects to the Peace River and Athabasca Delta)

Present Day Overview

1960 to 2008

Stressors - Industry Effects related to:

1) Cumulative industrial effects limiting the opportunity/ability for community members to carry out cultural activities

- Large permanent land deletions from oil sand development projects and facilities
- Limited access throughout the territory
- Large scale forestry clearing in southern part of McKay territory
- Fish advisories for Athabasca River and its tributaries
- Environmental contaminants and health concerns related to:
 - water in rivers, creeks, muskeg and lakes
 - plants
 - fish and wildlife
 - air
- Increase population in the territory
 - Increased land access for non-community members
 - Increased hunter/trapper conflict on community trap lines
 - Increased hunting and fishing activity by non-community members
 - Increased access to drugs and alcohol
 - Increased access to goods and services in Fort McMurray
 - Increased competition for jobs

2) Way of life

- Increased cost of living and reliance on money
- Need for parents and grandparents to work
- Importance of institutionalized education (in order to get a good paying job)
- Time constraints related to shift work, overtime and working more than one job
- High school in Fort McMurray
- Sensory disturbance from the mines (smell, sounds, dust)
- Increased industrial traffic around Fort McKay affecting safety and the number of non community members moving through the community
- Decreased ability to harvest safe country foods
- Safety of community members in Fort McKay and on their trap lines
- Lack of trust in the reclamation process

Summary Table Activities

Pre – 1960s		Present day - 2008
Hunting moose (chickens, rabbits, ducks)		Hunting moose (chickens, rabbits, ducks)
Trapping		Trapping and guiding
Fishing/ setting fish nets		Fishing/ setting fish nets
Collecting (berries, medicines, plants, bark, firewood)		Collecting (berries, medicines, plants, bark, firewood)
Making tools (traditional)		Making tools (traditional)
Smoking/drying meat and fish		Smoking/drying meat and fish
Preparing/drying berries		Preparing/drying berries
Preparing herbs, medicines		Preparing herbs, medicines
Preparing hides		Preparing hides
Visiting, shaking hands		Visiting, shaking hands
Tea dance/round dance, other dancing,		Tea dance/round dance, other dancing,
Sewing - making regalia and other crafts		Sewing - making regalia and other crafts
Drumming, singing		Drumming, singing
Ceremonies		Ceremonies
Story telling		Story telling and poetry reading
Protocols/offerings		Protocols/offerings
Traditional games		Traditional games
Art		Art
Making Moose Hide/preparing skins		Making Moose Hide/preparing skins
Making fire/hauling water		
Trading		
Seasonal labor		Seasonal labor
Electing community leadership		Electing community leadership
Resource management		Resource management
Taking care of the land/stewardship		Taking care of the land/stewardship
Stewardship		Stewardship
Traveling		Traveling
		Gardening
		Community Volunteer work
		Skateboarding
		Skidooing
		Language services and translation
Public School		Public School/E-Learning Keyano College Head start/Preschool
		Fort McKay Youth Programs from Wellness centre: - Children's After School Programs: recreational games, gym activities,

Pre – 1960s		Present day - 2008
		<p>athletic development, homework assistance, board games, arts and crafts, baking classes</p> <ul style="list-style-type: none"> - Supper Program: learn participation in meal preparation, and teaches kitchen safety, proper food handling procedures and cooking healthy meals. Enhances team building, communication and social skills and provides proper nourishment - Supervised Youth Nights: structured programming such as recreational games, gym activities, athletic development, board games, arts and crafts, baking, personal management development, role modeling - Youth Leadership Program: Provides recreational and leisure opportunities that support the development of leadership skills for all in school youth between the ages of 12 and 18 years - Cultural Programs: These include the involvement of community members and Elders to teach the children and youth of their community and pass on the cultures, heritage and traditions - Summer Day Camp Programs: YMCA Pre Teen and Teen Nights - Tutoring Program

APPENDIX D

Glossary

Activities: The things we do. Examples of activities are: hunting, going to school, fishing, picking berries, working, visiting, dancing, praying etc.

Caring: Looking after each other - giving attention to other people's needs and supporting people to meet those needs.

Cohesion/Bonding: the relationships that community members have to each other.

Cooperation: working together to attain common goals.

Connectedness: the spiritual connection that community members have with the creator, their past and traditions through their ancestors, others in the community, and the land. It also refers to the understanding that each of those aspects is linked to one another and form part of a whole.

Culture: a way of life. Culture affects the way in which people understand themselves, their land, their community and their spirituality. Culture gives order and meaning to a society and provides the underlying assumptions and rules that govern people's social behaviour.

Cultural Components: the ways in which people experience culture. The four components are **Self** (awareness and relationship with one's own self), **Community** (awareness and relationship with the community as a social unit), **Land** (awareness and relationship with the physical environment, including non-human others), and **Creator** (awareness and spiritual relationship with the creator and ancestors).

Cultural Values: Values are principles or standards that guide actions and behaviour. Cultural Values help communities identify what should be judged as good/right or bad/wrong.

Identity: the characteristics that distinguish our life or ourselves from another.

Indicator: tool for understanding and measuring changes in environmental, social, and cultural conditions. Indicators can be counted, measured and described. They represent broader

environmental social conditions.

Inputs: are the necessary cultural characteristics and cultural tools required to appropriately perform an activity. (What you have to “put into an activity” to do a good job). Inputs are affected by Cultural Values.

Outputs: are the results of appropriately conducting an activity (What you “get out” of doing a good job). Outputs affect Cultural Values.

Peace: a life free of conflicts. It is related to harmony in nature and with the people around you, where all creatures have the right to tranquillity.

Purpose: the meaning that actions have. It is related to the spiritual connection of humans, plants, animals and mother earth as a whole.

Respect: recognition that everything on earth has rights and privileges that are acknowledged and valued.

Rootedness: very deep feelings of attachment and belonging to the land. People *are part of* the place; the bond between some people, plants, animals, landscape and local spirits cannot be broken.

Rhythm of Nature: living and conducting activities by natural cycles – a seasonal round.

Self-reliance: the ability to provide for yourself and your family on your own or as part of a group.

Self-determination: the ability to freely decide how to live; including individual behaviour, government, and use/management of resources.

Spirituality: matters that relate to, consist of or affect the spirit; a connection to sacred values.

Stressor: Something that causes change

Tradition: actions or activities carried out to pass knowledge, skills and attitudes from one generation to the next.