Significant Forest Values For Local Aboriginal People:

A Preliminary Investigation into High Conservation Values Five & Six of the Alberta-Pacific Forest Management Agreement Area

Prepared By:
PACTeam Canada Inc.
Suite 200, 10720 113th Street
Edmonton, Alberta
T5H 3H8

Phone: 780.944.2701
Fax: 780.423.2711
www.pacteam.ca

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Executive Summary

Alberta Pacific Forest Industries Inc. is currently in the process of fulfilling the necessary requirements to receive certification under the Forest Stewardship Council's (FSC) National Boreal Standard. In June 2004 PACTeam Canada was contract by the World Wildlife Fund to assist in this process. PACTeam's task is to conduct a preliminary investigation into the presence of high conservation value 5 (HCV5), forest areas fundamental to meeting the basic needs of local communities, and high conservation value 6 (HCV6), forest areas critical to maintaining traditional cultural identity in Alberta Pacific's forest management agreement (FMA) area.

PACTeam conducted research into the resources and values used by, and of importance to, local Aboriginal communities. Here we look at big game, furbearers, birds, fish, berries, herbs and medicinal plants, plants and trees, settlement site, trails and traplines and spiritual sites, grave sites and historic sites. The results of the research show how extensively Aboriginal people make use of the land and resources that surround them, and how closely their identity is linked to their interaction with their environment.

Clearly identifying those values that meet the criteria of HCV5 and HCV6 will require additional research, consultation with the local communities and extensive spatial mapping of resources and resource use patterns. Below we offer some guidance and recommendations on how to proceed.

1. **Establish a Working Group**

- Al-Pac and other partners should consider whether they feel it necessary to establish an FSC Certification Working Group to push the completion of the tasks and steps necessary, to work out the details of the process and to determine how to deal with such a diverse population.

2. **Review the Basics**

- The basic questions guiding HCV5 and HCV6 assessment must be revisited and revised as necessary; the basic terms and phrases used in HCV5 and HCV6 must be defined; local indicators of HCV5 and HCV6 must also be identified. All must be conducted with input from a wide variety of people with interests in the area, particularly Aboriginal communities.
- There is a need to integrate HCV5 and HCV6. These cannot be mutually exclusive to a people whose identity and culture are tied so closely to the land and resources, thus they must be considered together and should thus be treated as one high conservation value.

3. **Explore, Gather & Organize Existing Relevant Digital Information**
   - Digital information relevant to HCV5 and HCV6 needs to be sifted from the Al-Pac database and gathered from communities, government, industry and NGOs. It might be necessary for Al-Pac to enter into knowledge sharing agreements with other Aboriginal groups to access their land use and occupancy information.
4. **Conduct a Gap Analysis**
   - Conduct a data gap analysis and devise a strategy for acquiring or otherwise dealing with missing information. Both digital and non-digital data should be reviewed.
5. **Begin Mapping Values**
   - The values listed should be mapped and overlapped with other HCVs for the identification of 'hot spots.' Data used should include that produced by government, industry, NGOs and communities.
6. **Enhance the Consultative Process**
   - Al-Pac is engaged in a process to inform the local Aboriginal leadership about the FSC certification process with a focus on FSC Principle 3: Indigenous Rights. This process could be strengthened by incorporating opportunities to discuss conservation values, Aboriginal views on basic needs and aspects of cultural identity; which would in turn enhance the assessment of HCV5 and HCV6.
   - These consultations should be viewed as a capacity building process and a means to draw Aboriginal people into Al-Pac's efforts to acquire certification. In this manner Aboriginal people will be full and complete participants in the certification process.

1.0 Introduction/Context

In June 2004, PACTeam Canada was contracted by the World Wildlife Fund (WWF) to conduct a preliminary investigation of components of a High Conservation Value Forest (HCVF) assessment. WWF hoped to assist Alberta Pacific Forest Industries (Al-Pac) in achieving Forest Stewardship Council (FSC) certification under the National Boreal Standard.

Ten principles guide FSC certification under the National Boreal Standard. Our focus is specifically on **principle nine** which looks at the identification of high conservation value forests (HCVF). According to principle nine, "Management activities in High Conservation Value Forests shall maintain or enhance the attributes which define such forests. Decisions regarding High Conservation Value Forests shall always be considered in the context of the precautionary approach" (FSCCWG 2003a: 92).

The National Boreal Standard identifies six attributes under principle nine, termed high conservation values (HCV) that define an HCVF. These attributes focus on the environmental, social and cultural values that make a particular forest area of outstanding significance.

PACTeam was tasked with conducting a preliminary assessment exploring the presence of **high conservation value five (HCV5),** forest areas fundamental to meeting basic needs of local communities and **high conservation value six (HCV6)** forest areas critical to local communities' traditional cultural identity, in the Al-Pac forest management agreement (FMA) area. The results would be incorporated into the existing draft high conservation value assessment completed by Timoney (2003).

While both Aboriginal and non-Aboriginal people inhabit and utilize the resources in the FMA are, **our focus is on the activities and needs of the Aboriginal people who live in or utilize the FMA area only** (see Appendix 1 for a list of First Nations and Aboriginal Groups within the Al-Pac FMA area). All reference to local communities and local people is in reference to Aboriginal people and communities.

Based on historic and ethnographic accounts, environmental impact assessments, community profiles and traditional land use and occupancy information, the following creates a baseline of information on the important land-based resources and values of the Cree, Chipewyan and Metis people who utilize the Al-Pac FMA area. We offer a discussion on determining which values meet the criteria of HCV5 and/or HCV6, and finally make recommendations on how to proceed in the future in assessing the presence of those high conservation values.

2.0 Forest Certification

Forest certification is a voluntary mechanism to independently verify good forest management. The FSC certification is only one global forest certification process. In 2003 the FSC released its National Boreal Standard (FSCCWG 2003a) that adapts its global certification criteria to the boreal forest. Specifically, the FSC National Boreal Standard attempts to balance the growing industrial demand for forest products and the increasing sensitivity to ecological considerations. The principles guiding the National Boreal Standard aim to (FSCCWG 2003b: 4):

- Promote improvements in "on-the-ground" forest management and practices in the boreal forest;
- Develop feasible and widely adopted certification standard; and
- Promote a common understanding of what constitutes good forestry in the boreal forest.

In 2000 Al-Pac began a two-stage process to obtain recognized certification for sustainable forest management under the Forest Stewardship Council's Sustainable Management Certification. Al-Pac has opted to pursue FSC certification under the National Boreal Standard, as this certification parallels Al-Pac's management philosophy in the areas of ecosystem management, ecological benchmarks and Aboriginal relations (Al-Pac 2000).

3.0 High Conservation Value Forests

High Conservation Value Forests (HCVF) constitute principle nine of the global principles and criteria and have been interpreted into a national framework for Canada in the National Boreal Standard (FSCCWG 2003a). According to the FSC National Boreal Standard (FSCCWG 2003a), an HCVF possesses one of more of the following attributes:

- Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values and/or where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;
- Forest areas that are in or contain rare, threatened or endangered ecosystems;
- Forest areas that provide basic services of nature in critical situations such as watershed protection or erosion control; and
- Forest areas fundamental to meeting the basic needs of local communities and/or critical to local communities' traditional cultural identity.

The concept of an HCVF looks at the environmental, social and cultural values that make a forest area significant. The intent, once these HCVFs are identified, is to manage them in order to maintain or enhance the values that make the forest significant (FSCCWG 2003a, 2003b).

There are six categories of high conservation values (Ibid.):

- *HCV1*-Globally, regionally or nationally significant concentrations of biodiversity values;
- *HCV2*-Globally, regionally or nationally significant large landscape level forests;
- *HCV3*-Forest areas that provide basic services of nature in critical situations;
- *HCV4*-Forest areas providing basic services of nature in critical situations;
- *HCV5*-Forest areas fundamental to meeting basic needs of local communities;
- *HCV6*-Forest areas critical to local communities' traditional cultural identity.

The following report **looks at HCV5 and HCV6 only, in the context of Aboriginal culture and communities**. These HCVs are different from the others in that they have a human element and their identification will ultimately require extensive consultation with local people.

3.1 High Conservation Value Five (HCV5)

The definition of an HCVF recognizes that some forest areas are essential to maintaining the well-being of local people. Specifically, **HCV5 refers to those forest areas fundamental to meeting the basic needs of local communities**, including subsistence and health needs. This HCV is meant as a security measure for local communities who procure a large part of their diet from the forest, as well fuel, medicines, building materials and other benefits, without any reasonable alternatives.

Determining if a forest area contains this HCV requires answers to such questions as: are their local communities using the forest management unit (FMU)?; is the FMU likely to provide one or more 'basic needs' to these communities?; does the FMU potentially provide irreplaceable levels of these resources (ProForest 2003c: 32-33)?

3.2 High Conservation Value Six (HCV6)

Forests can also be essential to people from a cultural perspective. **HCV6 refers to those forest areas critical to local communities' traditional cultural identity**, including areas of cultural, ecological, economic or religious significance. This value was designed to protect the traditional culture of local communities where the forest is critical to their identity, thereby helping to maintain the cultural integrity of the people. These values include those, without which, a local community would suffer an unacceptable cultural change and for which the cultural group has no alternative (ProForest 2003c: 35). These

values include, for example, sacred areas, burial sites, medicine plant sites and ceremonial grounds.

Assessing the presence of this value means determining the difference between having *some* significance to cultural identity and being *critical* to cultural identity.

Determining if a forest area contains this HCV requires answers to such questions as: are there groups in the area likely to have a strong cultural association with the forest?; what do those local people say about their connection to the forest area (ProForest 2003c: 36-37)?

3.3 Overlapping High Conservation Values 5 and 6

In the FSC National Boreal Standard, these HCVs are present as distinct values, HCV5 being values such as big game, fish and berries, HCV6 being values such as burial sites and cabins. We argue that there is significant overlap between these two values, which must be recognized if a proper assessment is to be completed.

Traditionally, Aboriginal people across Canada have had a very close tie to the land and resources that surround them. All needs were met through a seasonal round, harvesting necessary resources at particular places and at particular times. The development of cultural identity is inextricably linked to the land on which Aboriginal people depended. Today, their connection to the land is still an essential part of their identity.

In this way one can see that meeting basic needs, most often referred to as food, clothing and shelter, and is not simply an act of hunting, fishing, trapping or gathering. It is an exercise of cultural identity that incorporates the traditional knowledge of a people.[1] It is a way of teaching young people about their history and culture, about creating and maintaining social ties and travelling through the land where generations have before.

Maintaining traditional cultural identity is thus inherently tied to meeting basic needs. This is, however, a very limited view of what constitutes a basic need. Basic needs are not just about the tangible, they are also about the intangible. Here we argue that basic needs also include the ability to exercise cultural practices and maintain identity.

In this view, meeting basic needs is about maintaining burial and sacred areas, as well as harvest areas and resources. Maintaining cultural identity is about preserving special places and ensuring people are able to engage in traditional harvesting practices. The separation of HCV5 and HCV6 is thus flase.

[1] Traditional knowledge or traditional ecological knowledge has no one definition, nor can it been seen as a concrete entity. Most often it is defined as a body of knowledge, values, beliefs and practices passed form one generation to another by oral means or through learned experiences, observations and spiritual teachings. It refers to the identity, culture and heritage of Aboriginal groups, reflecting many millennia of living on the land.

4.0 Approach

The approach used in conducting a preliminary assessment for the presence of HCV5 and HCV6 in the Al-Pac FMA area is as follows:

a. Scoping Exercise

As outlined in The High Conservation Value Forest Toolkit (ProForest 2003), our initial step was to conduct a scoping exercise to determine if the HCVs are potentially present in the forest area. This exercise aimed to answer some preliminary questions such as: are there Aboriginal people living in the FMA area?; are there resources in the FMA area utilized by Aboriginal groups?; are these resources likely to meet a basic need?; are there important cultural resources, such as historic, sacred or burial sites present in the FMA area?; are the Aboriginal groups likely to have a strong cultural association with forests generally and the FMA area specifically?

Here we conducted some rudimentary research and spoke with knowledgeable people and organizations active in the area including NGOs, academics and research institutions and industry.

It was determined that Aboriginal groups are in fact present and actively using the land and resources in the Al-Pac FMA area, and that there is potential for the presence of HCV5 and HCV6.

b. Research

An intensive research exercise was undertaken to collect information on the use of the land and resources by First Nations and Metis living and/or utilizing the FMA area. Efforts were also focused on cataloguing the consultative and community involvement processes that are currently being undertaken in the FMA area by Al-Pac and others.

Major academic and government libraries, research institutes and the internet were searched for all publicly available information. General information topics included, but were not exclusive to, traditional land use and occupancy studies, ethnographies and ethnologies, traditional/subsistence/bush economy, participation in traditional land-based activities including hunting and trapping, community profiles, environmental impact assessments, basic statistics for each First Nation and Metis settlement, and developments occurring in the area.

Key persons and organizations were also contacted to aid in the research and analysis process (See Appendix 2).

c. Synthesize Information

The information collected through the literature search and initial discussions was then synthesized, drawing out information on resource use and major patterns of land use. For each resource mentioned in the research, efforts were made to record additional information about the resources, including its uses, and general and specific harvest locations. Unfortunately this additional information, in its entirety, was rarely available for each resource. The culture and history of the people were also looked at to begin building an understanding of their connection to the forest.

The research process created a partial picture of the First Nations and Metis use and occupancy of the land and resources in the Al-Pac FMA area.

A catalogue of consultative process (completed, occurring and planned) for the FMA area was created, noting, where possible, who was doing the consulting, who was being consulted, and what the consultation concerned. This was done to assist in determining which process might best incorporate further community-based consultation regarding HCV5 and HCV6.

d. Identify & Fill Information Gaps

Once information was reviewed and synthesized, information gaps were identified and attempts were made to fill these gaps through an additional research and information syntheses processes.

e. Meet with Select Stakeholders

Project team members met with select stakeholders from NGOs and industry to review our progress to date, discuss our approach, review information gaps, and to receive guidance on recommendations for future consultation with First Nations & Metis Settlements on FSC generally and HCV5 and HCV6 specifically. Attempts to meet with Aboriginal representatives were unsuccessful.

f. Draft & Submit Written Report

A written report was then drafted and submitted to WWF for review and feedback. This feedback was then incorporated into the written report and a final version was submitted to WWF.

5.0 Limitations of the Study

This report is the product of a preliminary study of a very large and complex area in Alberta with three distinct Aboriginal people (Cree, Chipewyan and Metis) living in dozens of communities. There were a number of significant limitations to the study including complexity, timing, information availability, confidentiality issues, and the absence of previous consultation initiatives.

The first limitation had to do with the timing of the project. This project was carried out over the summer (July and August) of 2004. The summer is a notoriously poor time to carry out business as many people are away on holidays or sporadically in the office and/or their communities. This makes contacting and meeting with people extremely difficult. We were consequently unable to meet with some stakeholder groups we had hoped to in the time allowed.

Access to information was an additional limitation to the study. There has been a great deal of research done on the traditional land use and occupancy of the Aboriginal people living in and around the Al-Pac FMA area. In fact the majority of First Nations and Metis settlements have completed or are in the

process of completing this type of study. Because of its confidential nature, much of this information is not available to the public. Even that held by Al-Pac was not available to PACTeam. Where the information is published, it is often missing from libraries and/or out of print and thus unavailable. While this limits the number of data sources, we were able to compile, what we feel is an excellent baseline of information on the resource use and occupancy of the Aboriginal people.

FSC Criterion 9.2:
The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.

Finally, we faced limitations in conducting initial informal discussions with First Nations about HCV5 and HCV6. Initial attempts were made to speak with Industry Relations Committees (IRC) from various First Nations; however, it was revealed that Al-Pac had yet to start consulting with the communities on FSC certification generally, and the IRCs were not willing to discuss the HCVs until Al-Pac had initiated discussions with them. In later discussions with Al-Pac, we were notified that informing the community had only begun with a few preliminary meetings at the end of July and would continue with additional meetings in September and October in preparation for the November audit. This discussions will focus only on principle 3 of the FSC National Boreal Standard. This meant that conducting any discussions with communities would be impossible as the ground-work had not yet been established.

6.0 Background

The Al-Pac FMA area is the largest FMA area in Alberta. It is home to tens of thousands of people, Aboriginal, non-Aboriginal and Metis, and contains some of the largest industrial developments in Alberta. The area is complex, to say the least, with multiple tenures granted for area, with three different Aboriginal groups living in and utilising the resources, and with a multitude of stakeholders, each trying to ensure their needs are met. This section provides a brief overview of the Al-Pac FMA and some background on the Aboriginal people living there.

6.1 The Study Area

The area under consideration is Al-Pac FMA area. The FMA area covers approximately 58,000 km^2 in Alberta, stretching from the Saskatchewan border west to Lesser Slave Lake, with its southern border starting just north of Athabasca and its northern border in the Birch Mountains north of Ft. McMurray. Al-Pac's FMA area is the largest awarded to any forest company in Alberta.

Of the FMA area, 98% is designated as part of the Boreal Forest Natural Region (as classified and described by the Alberta government) and as such contains both conifer and deciduous species. It is complex and diverse. The different types of forests contained in the FMA area must be managed as a dynamic, functioning ecosystems.

The leading tree species, aspen and white spruce, are the critical sources of fibre and timber for the forest products industry and are vitally important to the economic sustainability of the region's communities and mills and to biodiversity and ecological health.

Alberta-Pacific has the rights to harvest deciduous species on the FMA area. They share the rights to harvest coniferous timber with other forest company operators called Quota Holders. Al-Pac harvests mainly trembling aspen, a deciduous species that was once considered a useless species and was often destroyed so that more valuable conifer species could grow better.

The following summary describes the FMA area:

- *Non-Harvest, Non-Productive 58.0%*
  - This area includes water and all land that does not support tree growth that will become merchantable. These are areas that are considered unsuitable for harvesting;
- *Productive, Harvestable 36.1%*
  - This is the land area which supports tree growth and could be harvested;
- *Non-Harvest, Productive 5.8%*
  - The non-harvest, productive areas are those that could be harvested, but will not be. They have been set aside for things like riparian buffers and protected areas.
- *Unclassified 0.1%*

As part of the FMA, Al-Pac is responsible for conducting inventories and coordinating forest management planning on the entire FMA area. These activities are conducted in consultation with stakeholders and Aboriginal groups and are subject to government approval. *(From: www.alpac.ca)*

6.2 The Aboriginal People

For generations, Aboriginal people have lived in the area now covered by the Al-Pac FMA area. Cree, Chipewyan and later Metis have all made a living from the land and resources found in this dense wooded area. Today there are 26, 000 Aboriginal people living in the FMA area, with an additional 16,000 affected by the company's operations (www.alpac.ca).

Each First Nation signed Treaty 8 at varying points, the final and the largest major treaty the Crown negotiated with native peoples that would allowing the Crown the right to natural resources and the lands necessary to build a national railway. For the First Nations the treaty provided for the surrender of lands in exchange for hunting and trapping rights, reserves, treaty money, tools, implements and other benefits.

As the First Nations were signing Treaties, the Metis people were signing up with the script commissioner in exchange for land.

6.2.1 The Woodland Cree

The Cree were one of the most extensive and widespread Aboriginal groups of Canada, occupying the full boreal forest, from the east side of Hudson Bay to the Rocky Mountains, from the plains to the sub-Arctic. Cree people are typically divided into East Main Cree, West Main Cree and (Western) Woodland Cree. The Cree people occupying the Al-Pac FMA area are a subgroup of the Woodland Cree, known in the ethnographic literature as the Strongwoods or Bois Cree (Smith 1981a).

The seasonal round for the Woodland Cree began in the summer when people would gather in large regional bands around lakes where abundant fish resources, supplemented by game and berries, could sustain larger populations. Gathering in larger groups facilitated detailed planning of winter dispersal, and helped reinforce social ties and realign families (Ibid.).

CREE:

The term Cree likely originated from the French name *'Kristineaux'*, the Cree's own term is *'Nehiyawak'* or 'exact people.'

Before freeze-up in late fall, individual bands headed for their winter territory. Moose, elk and woodland caribou were among the most important big game species during this time. Fur bearers were also important, especially during November and December when the fur was of highest quality. In January and February when the weather was the most severe, activities were limited, allowing for the recounting of oral history and completion of other tasks (Ibid.).

When the ice began to break-up, woodland caribou were again the focus as they embarked on their spring migration. Open water meant families and bands could again return to their summer locations (Ibid.).

The Woodland Cree were among the first groups to meet British traders on the Hudson Bay in the 1600s. Over the next centuries the Woodland Cree became very closely associated with the European fur trade (Ibid.).

The arrival of fur traders brought many mixed blessings to the Woodland Cree. On the one hand, as Dempsey (1997:67) notes, "because of the marginal lifestyle of the Woodland Cree, where starvation was always a threat, the arrival of the fur trader brought many benefits." This included technologies such as guns, European nets, knives and metal pots, made the procurement of resources easier and more reliable. However, obtaining these technologies meant focusing largely on trapping and obtaining credit at the trading post, rather than pursuing their traditional way of life.

Fur traders moved into northern Alberta in the 1780s in the wake of westward moving Cree. By 1800, the Woodland Cree were being served by trading posts on the North Saskatchewan as well as on the Athabasca and Peace Rivers and at Lesser Slave Lake; and by the middle of the nineteenth century missionaries began to visit the Woodland Cree and later established missions around them (Smith 1981a).

Focused participation led to may changes for the Woodland Cree including: the development of individually or family-owned hunting and trapping territories where subsistence was based on non-migratory game, furbearers and fish; hunting and trapping in small kin-based groups; the harvest of large game to support Aboriginal populations and the trading post; increased sedentarization of people where the trading post and mission became the focus; conversion to Christianity and the abandonment of traditional customs including polygyny and cross-cousin marriage (Ibid.).

While the loss of traditional culture is devastating to the cohesiveness of the people and their connection to their ancestors, their close connection to the fur trade and Europeans for such a long time has placed them at a certain advantage. "With their close association to the white man for so many years, the Woodland Cree have been better prepared than many tribes to meet the demands of today's society" (Dempsey 1997:70) This is especially true in reference to the development of renewable and non-renewable resources that is occurring on their traditional territory today.

6.2.2 Chipewyan

The Chipewyan are a part of the Athapascan linguistic group. Several major divisions among the Chipewyan are recognized: (1) Copper People or the Yellowknife; (2) 'Caribou Eaters', the bands along the forest edge west of Hudson Bay; (3) 'Dwellers at the top of the Head', the people of the upper Churchill River drainage; and (4) 'Dwellers Among Quaking Aspen' or the Athabasca Division. It is this final division that partially occupies the Al-Pac FMA area.

Traditionally the Chipewyan occupied the forest-tundra ecotone from near Hudson Bay, north of the Seal River in a wide north-westerly arc to north of the Arctic Circle, near the mouth of the Coppermine River, extending west into the region between Great Slave Lake and Lake Athabasca and beyond, and south of Lake Athabasca to the lakes of the Churchill River Drainage (Smith 1981b).

Living in the northern transitional zone of the boreal forest and the Barren Grounds, winters were long and severe with freeze-up occurring by mid October and break-up not complete until June or July. The seasonal cycle was based on the movement of the caribou herds. Winters were spent in the forest from November to April/May with the Chipewyan moving as necessary to follow the herds. When the herds move onto the tundra in the spring, the Chipewyan placed themselves on the migration routes. The summers were spent on the Barren Grounds, either in large groups or dispersed, with the caribou (Ibid.).

CHIPEWYAN:

The name Chipewyan comes from the Cree term 'pointed skins', given to them because of the tail-like protuberances hanging from the bottom of their shirts. This characteristic gave rise to a myth about a race of part animal part human creatures that lived in the north, illustrating the difficulty early interpreters had in explaining that the tails belonged to the shirts and not to the people themselves.

While the Chipewyan, have had the longest continual contact with Europeans, they remained marginal to the fur trade. As Samuel Hearne (in Smith 1981b:273) noted, in their lands furbearers were scarce and the Chipewyan required little in the way of trade goods, as the caribou provided almost all of their needs. During the early period of the fur trade the Chipewyan acted as intermediaries between the Hudson's Bay Company and the Yellowknife and Dogrib. The Chipewyan monopoly of the Athapaskan trade was broken in the late eighteenth century when the Scots traders from Montreal (eventually amalgamated as the North West Company) entered the area and established posts (Smith 1981b).

This was countered by the Hudson's Bay Company which started an intense period of competition which did not end until 1821.

"The demand for furs in the competitive period and the low prices for trade goods were significant in the shift of some Chipewyans from the forest-tundra ecotone into the full boreal forest" (Ibid:273). Traders encouraged the Chipewyan to trap in the forest where furbearers were the most plentiful and the Barren Ground caribou were not present to distract them. "In the late eighteenth and early nineteenth centuries, many Chipewyans responded to the traders' urgings and became the nucleus of the upper Churchill River and Athabasca divisions, while the Caribou Eaters remained in their traditional territories" (Ibid:273).

Movement into the boreal forest brought the Chipewyan into closer, more frequent contact with Europeans. Proximity to the trading post meant culture change occurred more rapidly. In this area, woodland caribou and moose were the primary subsistence species, which meant hunting strategies had to be adapted, and in some areas family-owned trapping territory developed. Even band affiliations tended to weaken over time as people became more strongly associated with the trading post.

6.2.3 Metis

By simple definition, the Metis are a sector of the population whose status is defined by their perceived mixed descent from both Aboriginal and non-Aboriginal parents. The Metis are not a homogeneous population. There are considerable differences among Metis populations in terms of the ethnic mix and history. The Metis population emerged as a demographic phenomenon that has marked the frontiers of European colonial expansion (Slobodin 1981:361).

Unions between First Nation women and fur trade men became an essential link between the two groups in the fur trade. While in law the Metis have no collective identity, "certain conditions, socio-economic characteristics and external conditions such as discriminatory pressures combine to give this scattered population…more enduring significance…and to imbue in its members a sense of identity as Metis" (Ibid. :361).

By definition, the existence of the Metis people occurred after contact with non-Aboriginals. As such there has been no independent Metis economy as there existed for the Cree, Chipewyan and other First Nations groups in Canada. That said, it should be noted that until the late 1960s and early 1970s, the vast majority of Metis men, and some women, participated in trapping and subsistence hunting and fishing, much like other Aboriginal groups. Metis did, however, play an additional role in the fur trade, different from other Aboriginal groups and largely dictated by their mixed ancestry. Not only were the Metis harvesters and merchants of fur, but they were also interpreters, middlemen and transporters of men and provisions (Ibid:361). It is in this capacity that the Metis are the most famous. "Metis served as canoemen, York boat men, mail-drivers, fore-runners, steamboat deckhands, stevedores and pilots" (Ibid:361).

7.0 Values of Importance

7.1 Information Sources

The sections that follow look at the land-based values of importance to the Cree, Chipewyan and Metis people who utilize the FMA area. While there are certainly differences between the peoples and their land usage, there is also significant overlap. For the purposes of this study, the Aboriginal people have been grouped together to illustrate the spectrum of resources used, thus creating an excellent baseline of information upon which to further HCV assessments can be based in the future (See Appendix 3 for a detailed list of resources & their use by specific groups.). These future studies should attempt to delineate resources used by specific Aboriginal groups. A variety of studies were reviewed including:

- publicly available traditional land use and occupancy studies;
- environmental impact assessments;
- community profiles and economic assessments;
- ethnographic literature; and
- wildlife studies.

These studies are conducted for varying reasons including (1) facilitating relationships with industry; (2) providing evidence of use and occupancy of the land; (3) as part of an environmental impact assessment; (4) for community development planning; and (5) as a community resource. These varying purposes naturally influence the type of information collected, how it is presented and the amount of detail available. The vast majority of studies accessible focused on resource harvesting by Aboriginal people, particularly on big game and fur bearers, followed by birds, fish, plants and trees.

Some studies looked in detail at a resource, specific harvest locations, uses and methods of harvesting, while others provide a list of resources, indicating which are harvested most often, or are of greater importance (as determined by those particular study criteria).

The purpose of the study also influences its geographic coverage. In some cases studies look at resource use and occupancy covering the entire traditional use area of a group while others look specifically at an area for a specific development project. Still other studies look at the participation in traditional activities generally, for a particular community, without indicating geographic coverage.

There were few studies available to the public that focused on settlements sites, medicine plant sites, trails and traplines or sacred, historic or grave sites. This should not be an indication that these types of sites and resources are less important than others, quite the opposite. These are often the sites of greatest concern to people. Consequently, information concerning them is much more confidential and sensitive than that of other values. People are very protective of the locations of these sites, for fear that outsiders, if they know about the locations of these sites, will take advantage of that, negatively impacting the Aboriginal group.

7.2 Big Game

Big game is among the most important resources for Aboriginal people in the area, constituting an important component of the local diet. Moose is consistently referred to as the most important large game species for many Aboriginal groups, and are hunted at any time of the year. Traditionally, moose was not only a source of food, but the hides were tanned and used for clothing and shelter and bones were used to make tools. Today it is a preferred meat among many Aboriginal people and helps to offset the high cost of food in the Al-Pac FMA area (de Cardinal 1996:h-2).

In many studies, Aboriginal people note that moose populations have been decreasing gradually. This is largely attributed to increased access to remote areas caused by development, which in turn increases the hunting pressure from outside hunters. As a result, many Aboriginal groups have expanded their moose hunting territory. Other species were also noted for their importance, including woodland caribou (and to a lesser extend Barren Ground caribou), and deer. Deer are very abundant in the FMA area, but they are only hunted opportunistically, for instance while trapping or moose hunting. Caribou are especially important to the Chipewyan people who, before European contact, participation in the fur trade and movement into the full boreal forest, focused their seasonal round on the movement of the Barren Ground caribou.

COMMONLY HARVESTED BIG GAME SPECIES:

- BARREN GROUND CARIBOU
- BUFFALO/BISON
- MOOSE
- WHITE-TAIL DEER
- BEAR (BLACK & GRIZZLY)
- ELK
- MULE DEER
- WOODLAND CARIBOU

7.3 Fur Bearers

Traditionally, and later in post-contact times, trapping animals for fur was an important aspect of the bush economy, later expanding to meet the commercial demands of the European markets (ACFN 2003:78). The intense involvement of the Cree, Chipewyan and Metis people in the fur trade is viewed as the major catalyst in changing their traditional, nomadic way of life to a sedentary one. This new life focused on the trading post and later on small permanent settlements. Since the end of World War II, trapping activities have declined largely due to declining fur prices, the increasing cost of trapping equipment and fuel, the increasing desire for goods and services that could not be satisfied by trapping and the increasing availability of higher, more reliable

incomes (Stuart Adams & Associates 1998:117).

Trapping does, however, still play a very important role in Aboriginal communities. While trappers find it increasingly difficult to earn a living from fur harvesting only, it can supplement participation in wage earning labour. As deCardinal (1998: h-1) notes, when speaking of the Aboriginal people in Fort Chipewyan, "To underscore the importance of the roles of this traditional occupation in the community today, there are currently 75 registered active traplines in the immediate area outside of the Wood Buffalo National Park and 45 documented traplines in the park. The local Northern Store still maintains a fur grading and buying service. Also the MCFN [Mikisew Cree First Nation] has an active and strong trappers group, with over forty members…" (deCardinal 1996:h-1) Further, "participation levels [in trapping] fluctuate yearly depending on the availability of fur, fur prices, and travel conditions. When animals are abundant and prices are good, just about everybody is out trapping" (Whole Note Contract Services 1983:19).

Beaver was among the most important species for the fur trade, and is still trapped regularly for both fur and meat. Muskrat, trapped for both fur and meat, is also very important to Aboriginal people as it was extremely abundant in the area prior to the drop in water levels in the late 1960s. Rabbit, lynx, marten and fisher were also noted as important fur bearers to the Cree, Chipewyan and Metis people.

COMMONLY HARVESTED FUR BEARERS:

- BEAVER
- BLACK BEAR
- COYOTE
- FISHER
- FOX
- GRIZZLY BEAR
- HARE/RABBIT
- LYNX
- MARTEN
- MINK
- MUSKRAT
- PORCUPINE
- RED SQUIRREL
- RIVER OTTER
- SKUNK
- WEASEL/ERMINE
- WOLF
- WOLVERINE

7.4 Fish

Although red meat is generally preferred, fish also represent an important portion of the Aboriginal diet. In Aboriginal times, fish was the primary food source when others were scarce, and was also used to feed dog teams. The multitude of good fish lakes in the area makes it a plentiful, reliable resource. Fishing occurs throughout the year, primarily using gill nets on lakes and rivers, with major harvesting taking place in the fall and spring.

In the summer fish are caught to make dry fish. In the winter and spring, fish are caught primarily for fresh food

(ACFN 2003:113). Fish oil was often rendered from fish and used as a medicine. The catch and preparation of fish is an activity that involves the entire family, if not the community, and is thus an important social event.

COMMONLY HARVESTED FISH SPECIES:

- CHUB
- GOLDEYE
- GRAYLING
- LING COD
- PERCH
- PIKE (JACKFISH)
- RED & LONGNOSE SUCKERS
- TROUT
- TULLIBEE
- WALLEYE (PICKEREL)
- WHITEFISH

Whitefish is preferred for making dry fish as it dries soft. Other preferred fish species are noted to be walleye (pickerel), pike (jackfish), trout and goldeye. Most major fish lakes appear to be harvested to varying degrees, with lakes closer to communities being fished more often.

There is much concern over the health of fish species, however, because of the large scale industrial development occurring throughout the Al-Pac FMA area. This is especially true for the Athabasca River system. For instance, in a survey conducted in the community of Fort McKay revealed that of the study participants, only 5% would eat fish from the Athabasca River, because of concerns over water pollution (Fort McKay Environmental Services 1997:6).

7.5 Birds

Waterfowl and upland game birds are also key subsistence species. Waterfowl are harvested primarily in the spring (April and May) when the birds are returning from their winter migration. Some birds are harvested as they pass through the area again in the fall, but much fewer are taken at this time because they do not taste as good as they do in the spring.

According to the Athabasca Chipewyan First Nation (ACFN 2003:120) "a family

COMMONLY HARVESTED BIRDS:

- BLUE HERON
- CRANE
- EAGLE
- GROUSE
- OWL
- PTARMIGAN
- SWAN
- CORMORANT
- DUCKS
- GEESE
- LOON
- PELICAN
- SEAGULL

would take between 20 to 200 ducks per year and from 5 to 50 geese. Two to 10 swans were also harvested annually by each family." Various types of ducks, geese and swans are taken, although fish-eating ducks are not.

Waterfowl provides meat, oil from rendered meat, and feathers which would be used for pillows and bed rolls. Eggs are also gathered from waterfowl nests, particularly duck eggs.

Upland game birds were also harvested, including grouse and ptarmigan. Like deer, these are mostly harvested opportunistically. Men often harvest them when they are found on traplines or while hunting. They are very abundant in the area and are often found close to camps, cabins and communities. The proximity to settlement sites meant that women have traditionally been the primary harvesters of these birds. Predatory birds such as owls are sometimes also taken as a food source.

7.6 Berries

Berries are a widely used resource. They are eaten fresh, pounded flat and dried or preserved in jars. They are eaten alone or as flavouring in different dishes, and have been used to make dies and beads and have been used in ceremonies. Blueberries, cranberries, saskatoon berries and raspberries were mentioned the most often and appear to be the most popular berries, although many others were mentioned as being harvested occasionally.

Berry harvest sites are present throughout the Al-Pac FMA area, including *Mowsoonick* (the place where we pick berries) at the north end of peerless lake where the Bigstone Cree harvest. For the Aboriginal people of Fort Chipewyan, "Every family has their own traditional gathering areas and engage in this activity on an annual basis. The most prevalent traditional gathering activity is the annual berry picking season where wild berries are harvested.

COMMONLY HARVESTED BERRIES:

- BLUEBERRY
- CHOKECHERRY
- CURRANT
- HAZELNUT
- JUNIPER BERRY
- PINCHERRY
- ROSEHIP
- STRAWBERRY
- BUNCHBERRY
- CRANBERRY
- GOOSEBERRY
- HUCKLEBERRY
- KINNICKINNICK
- RASPBERRY
- SASKATOON BERRY
- TWISTED STALK

These berries…offset the high cost for food and staples" (deCardinal 1996:h-2). The places where berries are harvested are not isolated, random locations. Rather, the "berry patch locales represent important recreational sites for families" (Hickey 1999:13). Further, "it is evident that the location of berry patches and the seasonal harvesting of berries generally coincide with other land use activities" (Ibid.). Berry picking thus compliments other harvesting activities making it an important activity for families and communities.

7.7 Plants & Trees

Only a few of the studies available referred to the use of trees and/or non-medicinal plants by Aboriginal people. It is obvious, however, that trees are used frequently by the vast majority of people in the Al-Pac FMA area for building material, (for cabins, toboggans, sweat lodges, drums), for fuel (for cooking and smoking meats and fish and for heat), and for making various crafts and baskets. Trees mentioned most frequently include willow, alder, spruce and poplar. Trees area also necessary in providing the proper habitat for many of the fur bearers Aboriginal people rely on for meat and to supplement their income.

Plants, including mint (eaten raw or as an additive to food and tea), moss (used in bags and as diaper material), cattails, bulrushes and nettles (food sources) are also harvested to varying degrees.

COMMONLY HARVESTED PLANTS & TREES:

- ALDER
- ASPEN POPLAR
- BALSAM FIR
- BIRCH
- BULRUSH
- CATTAIL
- COMMON NETTLE
- COMMON PLANTAIN
- COMMON TANSY
- JACKPINE
- LODGEPOLE PINE
- MOSS
- POPLAR
- SPRUCE
- TAMARACK
- WILLOW

7.8 Herbs & Medicinal Plants

COMMONLY HARVESTED HERBS & MEDICINAL PLANTS:

- ALDERS
- ASPEN
- BALSAM FIR
- BALSAM ROOT
- BLUEBERRY ROOTS
- COMMON YARROW
- GROUND FUNGUS
- HORSETAIL
- LABRADOR TEA
- MINIATURE SUNFLOWER
- MINT
- MOUNTAIN ASH
- PITCHER PLANT
- POPLAR BARK
- POPLAR BUDS
- RAT ROOT
- SENECA ROOT
- SNAKE ROOT
- SPRUCE ACORN
- SPRUCE GUM
- SWEETGRASS
- TAMARACK BARK
- TREE SAP
- WHITE TIPPED FLOWER
- WILLOW BARK
- WILLOW FUNGUS
- WINTERGREEN

The topic of medicinal plant use and harvest locations is a sensitive issue for many Aboriginal people. These resources are very important as they are used to care for ailments and their use carries with it a great deal of traditional knowledge and history, much of which is only held by Elders in the community. People are consequently guarded in speaking about medicinal plants. As noted by Fort McKay Environmental Services (1996:22):

> *"The specific locations of these plants, especially those used for medicinal purposes is a sensitive issue. Researchers have been known, previously and with other peoples, to exploit the knowledge shared with them by the Aboriginal people. Due to these past experiences, the Elders are no longer willing to publicly share or reveal this essential and culturally sensitive knowledge."*

The few studies that referred to herbs and medicine plants illustrate Aboriginal people's vast knowledge of plant species and the extensive use they make of the resources at hand. Rat root, an all purpose medicine and mint, for chest colds, was mentioned the most often in studies and, one can assume, is used the most widely.

7.9 Settlement Sites, Trails & Traplines

Settlement sites (cabin sites) trails and traplines all mark places where people have lived and travelled and are important symbols of a people's use and occupancy of the land. "These sites represent important focal points for subsistence harvesting, as well as cultural activities…" (Hickey 1999:9). These sites are found in close proximity to where people gathered for the summer, to major harvest areas and/or to cultural/spiritual places. As noted in the Kituskeenow study (1999:32), "Significantly, most of the cabin sites, especially home sites, are on the shoreline of a lake or major river or built along traplines which are near streams or rivers." This notion is also reflected in a study of Fort Chipewyan: "The pattern of distribution reflects the importance of water bodies for access, landing by float or ski equipped aircraft, and fishing. Cabins located on the shores of many interconnected channels of the Slave Delta and the Peace-Athabasca Deltas are there for ease of access in both summer and winter " (Whole Note Contract Services Ltd. 1983:3).

Many settlement sites, trails and traplines are no longer in use, or are used infrequently, but they remain a reflection of the history, movement patters and activities of the people (Kituskeenow 1999:32). People are adamant about the protection of these sites and the environment around them, particularly settlement sites, for these reasons (Hickey 1999).

7.10 Spiritual Sites, Grave Sites & Historic Sites

Like medicinal plants, people are also hesitant to talk about spiritual sites, grave sites and historic sites for fear that if the public knows where these sites are, they will desecrate and damage them. Like trails, traplines and cabin/settlement sites, spiritual, grave, and historic sites are a picture of the history, movement and land use of a group of people. They show where people lived and died, where they built their societies and established their cultures These sites are essential to the maintenance of people's identity.

7.11 Value Summary

The Aboriginal people living in the Al-Pac FMA area make extensive use of the land and resources that surround them. Moose, muskrat, whitefish, trout, ducks, geese, berries and various plants and trees are all mentioned the most frequently in the studies reviewed. Cabins, trails, burial sites and sacred areas are spoken of as essential to the history and culture of the people. These sites show how and where people lived and harvested resources, where they moved at different points in the year, where they gathered in large groups when resources could sustain it, and where they lived in smaller family units.

All resources used by Aboriginal people in this area fall into 2 general categories: (1) landscape level values, including moose and caribou, which require a specific habitat and can be harvested over large areas (although some harvest places may be preferred as they are areas of particular cultural significance and for ease of access); and (2) site specific values which are located at a specific point, such as cabins and burial sites. These values will require different types of management to preserve or enhance the value. For site specific values, management may take the form of a no-development buffer surrounding the value, while landscape level values will likely require measures to protect the resource's habitat to ensure its numbers remain such that it fulfills the needs of Aboriginal people.

As stated previously, this is only a preliminary assessment of the large range of values, more information will be necessary to make an appropriate assessment of the values consistent with HCV6 and HCV6 status, and their appropriate management. This will require an extensive consultation process with local communities for local people are truly the only ones that can accurately make an assessment as to which resources are critical to maintaining traditional cultural identity (HCV6) and which are essential to meeting basic needs (HCV5). Consultation is discussed further in sections 8.3 and 9.

8.0 Determining Which Values Fall Under HCV5 & HCV6?

8.1 Defining Terms

Determining which of the values identified above falls under the criteria set out for HCV5 and HCV6 is a complex process. While a full determination cannot be made during this preliminary assessment we can begin to explore the criteria and their categorization.

The first step in determining which of these values might be an HCV5 or HCV6 involves defining some key terms. HCV5 is defined as forest areas fundamental to meeting the basic needs of local communities; HCV6 is defined as forest areas critical to local communities' traditional cultural identity. But what do terms like essential and critical mean? What are basic needs? Defining these terms is critical to assessing the values. Shaping these definitions should involve a wide variety of people with an interest in the area, including Al-Pac, NGOs and Aboriginal groups.

Defining these terms "is particularly difficult because, although some values may have simple yes/no alternatives, many will be measured on a continuum of gradually increasing importance. This means that, although HCVF definitions should always be based on the best available scientific information, they will inevitably involve value judgements" (ProForest 2003b:6). The value judgements will be different from stakeholder to stakeholder. This necessitates a comprehensive consultation process which should include, among others, local communities.

8.2. The Need for Community Consultation

The role of this consultation process is two-fold. First it should explore the definitions of terms within HCV5 and HCV6. As Part 3 of the HCVF Toolkit states (ProForest 2003c: 32-36), "deciding whether a basic need is 'fundamental' ultimately requires consultation with the local communities who use the forest." Further, "the difference between having some significance to cultural identity and being **critical** will often be a difficult line to draw and…the way it is established will be highly variable. Ultimately, it will only be possible to decide this is consultation with the community…"

Second, the consultation process should occur with Aboriginal communities to ensure values are correctly assessed, to ensure their perspective is taken into account. As noted in the HCVF Toolkit Part 2 (ProForest 2003b:60),

> *"It is therefore important that a wide range of opinions and knowledge is used when identifying them, developing management regimes for their maintenance and in reviewing the effectiveness of the management. Involvement of stakeholders in these processes has at least two major advantages:*
>
> - *Calling on a wide range of experience and knowledge provides a greater degree of certainty that identification and management decisions are suitable.*
> - *Involvement of interested stakeholders provides greater assurance to society that the HCVs are being dealt with in an appropriate manner."*

Consultation processes are varied but must be adequate and appropriate to both the size and type of forest organization and the size and type of communities being consulted. The consultation processes currently underway by Al-Pac in the FMA area communities are discussed in section 9. Some of these, particularly those already dealing with FSC certification, could be excellent channels through which to discuss important values with local people.

8.3. Finding Indicators of HVC5 or HCV6 Status

Now that the baseline data has been collected, how does one go about determining if a value is essential to meeting basic needs? Is it critical to maintaining traditional cultural identity? What are some indicators of HCV status of the importance of different values to Aboriginal people? As stated in the above sections, these questions cannot truly be answered without input and guidance from local communities, but the following provides some thoughts and guidelines.

There is a tendency in Western society to measure resources and resource use through monetary valuation as the primary indicator. The value of subsistence resources is quantified in an attempt to measure the volume and value of production. For example what

would the replacement cost of one pound of moose meat be for one pound of ground beef bought at the local store? What is a trapper's harvest worth in one year? Over 10 years? Similarly we could count the number or amount of species harvested, the number of traplines registered, the number of people hunting and gathering.

While this process is useful, especially in explaining to industry, one must be cautious when using monetary values as the only indicator. There is an inherent bias in this method as it does not recognize the cultural significance of resources and the act of harvesting them. "These approaches have… misrepresented and devalued the cultural significance of Aboriginal resource use by failing to account for the cultural values (i.e. spiritual, individual and collective health and identity) that are nested within subsistence activities" (Natcher 2000:3).

Cultural significance manifests itself in a number of ways including community cohesiveness and stability, cultural identity and even physical and mental health. These indicators should be taken into account as well, when assessing a resource's value.

As an example, with no additives or preservatives (leaving aside concerns over contaminants for a moment) and less harmful fats and sugars, Aboriginal resources have a higher nutritional value than store bought foods, contributing to the overall health and dietary quality of a community (Wein *et al.* 1991). Further, harvesting activities ensure people are continually out on the land, exercising their treaty rights, exercising their cultural traditions, away from the social problems often founding on reserves and in communities. This goes a long way to improving mental health. How would one place a monetary value on these aspects of the resource?

Community cohesiveness is an additional indicator that can be used in identifying an HCV5 or HCV6. Being out on the land involves more than just one person. Cooperation between families and friends is necessary in obtaining and sharing resources. These actions build social ties and create obligations among people. Cooperation and sharing, social ties and obligations are essential to maintaining culture and community, and are essential for maintaining a cohesive community. How would one place a monetary value on these aspects of the resource?

Ultimately, Aboriginal resources, and the act of harvesting are about building and reinforcing who these people are, about reinforcing their identity as a group. This identity is inherent in the environment and resources which surround the Aboriginal people in the Al-Pac FMA area. Without those resources, it is true that those people would not exist. As Jim Webb, representative of the Little Red River Cree explains of the Cree people, "The Cree people are so much a part of the forest and the forest is so much a part of them, that if the forest is destroyed then who they are disappears" (CPAWS Workshop Report, Conservation, Traditions and Cooperation: Notes from a Land Use Planning Meeting, March 11 and 12, 2002).

Even people employed in wage earning labour "maintain ties with such through the ownership of permanent traplines and cabins" (deCardinal 1996:b-7). Put

simply, you cannot have a culture built on hunting and gathering, built on the resources available in the boreal forest without the ability to harvest those resources.

In identifying indicators of HCV5 or HCV6 status it is important to look beyond the monetary value of resources to those indicators that are important to local people, to those indicators local people identify. Determining these indicators should be done in conjunction with local community people.

9.0 Consultation, Al-Pac & FSC Certification

9.1 A Note on Consultation

Consultation is a term used a great deal with regard to natural resource development and competing land uses. This is especially true where Aboriginal people are concerned. Government and industry have a legal obligation to consult with Aboriginal groups regarding development on their traditional land; however what exactly constitutes consultation or a consultative process is not clearly defined and thus takes on many different forms.

It is PACTeam's belief that consultation is not simply a 'one-off' exercise where an outside person enters a community one time and expects to get meaningful answers to questions. Consultation is an on-going process. Adequate time and effort must be provided to build trust between communities and the researcher, to learn how to communicate effectively, and to learn what questions need to be asked. We thus believe that incorporating discussions on HCV5 and HCV6 into existing, ongoing consultative processes is much more likely to produce successful results, than developing a separate process.

9.2 Al-Pac Public Involvement Commitments

Al-Pac's Stewardship Report (2001) states that the company consults widely with stakeholders in the FMA area and across the province to ensure that multiple land uses and landscape values are taken into account. Consultation processes include the Forest Management Task Force (FMTF), public meetings, forums such as the Sustainable Forest Management Network and the Alberta Chamber of Resources, contacts with Aboriginal communities and numerous other formal and informal contacts (Al-Pac 2001). This appears to be consistent with the goals identified in their detailed forest management plan. Table 1 describes commitments related to issues of concern identified during this study's assessment of HCV5 and HCV6.

Table 1. Public Involvement Commitments Identified in the Al-Pac Detailed Forest Management Plan (DFMP).

DFMP Reference	Commitment/Expectation From Plan
• DFMP Section 5.3.1 • Moose and Deer	• Summary of FMA holder's activities with agencies & interest groups to monitor moose & deer populations, & harvest levels.
• DFMP Section 5.3.2 • Woodland Caribou	• Show support for caribou research & monitoring.
• DFMP Section 5.3.3 • Fur Bearers	• Consult with trappers & organisations
• DFMP Section 5.3.4 • Birds	• List the FMA holder's participation with agencies & interest groups as summarized in the public involvement documents regarding bird species.
• DFMP Section 5.5.2.1 • Recreation and Tourism	• List the FMA holder's participation with recreation & tourism agencies & interest groups as summarized in the public involvement documents. Specifically name recreation groups & tourism operations that were contacted to review harvest plans.
• DFMP Section 5.5.2.2 • Cultural and Historical Sites	• Contact groups with regard to cultural & historical sites, encourage the identification & mapping of unreported sites.
• DFMP Section 5.8 • Public Involvement Program	• Ensure that Forest Management Task Force remains functional.
• DFMP Section 5.5.2 • Heritage Forest Strategy	• List the FMA holder's participation with heritage forest agencies & interest groups as summarized in the public involvement documents.
• DFMP Section 5.9 • Aboriginal Affairs	• Describe company's Aboriginal commitments.

(Adapted from Al-Pac Stewardship Report 2001.)

While the Stewardship Report, primarily Section 6, provides some insight into the attainment of these objectives, this study did not independently verify the achievement of these goals. In our conversations with AL-Pac representatives, we were also unable to verify the achievement of these goals. This will have to occur through a third party assessment with discussions with AL-Pac and community members

9.2.1 Forest Management Task Force (FMTF)

The FMTF was established in 1992 to involve Aboriginal people, environmentalists, resource user groups, government agencies and coniferous quota holders in Al-Pac's forest management planning. The group has about 30 members and operates on a consensus basis. It meets approximately 10 times a year for day long sessions, led by a professional facilitator, to review forest management plans, operating ground rules and related issues.

9.2.2 Annual Operating Plans (AOP)

Al-Pac seeks other stakeholders' input by various means. One key focus is the Annual Operating Plan prepared each year, in accordance with Alberta regulations. This document is summarized and more than 1000 copies of the summary are distributed each year to libraries, government officials, FMTF members, Aboriginal communities in and around the FMA area, outfitters, guides, trappers, community members and other interested parties.

9.2.3 Aboriginal Relations

Al-Pac maintains three regional offices located in Wabasca, Janvier and Fort McMurray. Each office maintains a community liaison coordinator, who is usually an Aboriginal community member. These coordinators work with community leaders, organizations and businesses to open lines of communication and identify opportunities for community development.

A trapping management program was established as the first harvest operations began in 1993. Trapper's, many of whom are Aboriginal, were hired to monitor specific areas so that yields could be measured before and after logging. Trappers are also notified before any activity occurs that might affect their traplines. The company has produced very detailed guidelines for trapper notification. Compensation, often in the form of paid work such as environmental monitoring or beaver control, may be provided to those affected. Trappers have assisted the company in identifying roads, paths, cabins and other areas to be considered in harvest planning, and they have continued to provide data on furbearing animals to help monitor key species in the forest ecosystem.

Additionally, Al-Pac supported three traditional land use studies in the Fort McKay, Janvier and Wabasca areas. These studies focused on the identification of burial grounds, berry picking areas, historical sites and other places of cultural or spiritual significance to the Aboriginal peoples. These studies are used in FMA area planning. The company also worked directly with communities such as the Heart Lake First Nation to identify areas that people considered valuable or significant. The areas were then plotted using a global positioning system.

9.2.4 Other Communications Initiatives

Information about company plans and activities is also provided at 'open house' sessions, trade fairs, and other community events in and around the FMA area.

Al-Pac has offered an environmental education program to schools since 1994 and provides mill and woodlands tours for interested persons.

9.2.5 Forest Stewardship Council Certification

In late July 2004, Al-Pac began an initiative to discuss FSC certification with Aboriginal communities. Al-Pac's Aboriginal Affairs Corporate Director has been contacting the local leadership to describe the FSC process and audit. The focus of these discussions has been primarily on Principle 3 of the National Boreal Standard which deals with Aboriginal rights. In September and October, in preparation for Al Pac's FSC audit, 2 additional rounds of discussions are planned with a wider community-based audience.

10.0 Moving On: Conclusions, Recommendations & Next Steps

The many resources harvested by the Aboriginal people living in the Al-Pac FMA show how extensively people have used, and still use the resources available to them. While different resources have been presented as distinct categories, there is an inherent interconnectedness to people's land use and occupancy. The places where people actively harvest resources are the same places where they will erect cabins; they are the same places where people die and are buried; and are the same places where historic events occur. Each of these site types overlap and are connected by a series of trails travel routes and traplines that people use to move throughout their traditional territory.

The same interconnectedness and overlap is true for HCV5 and HCV6. Meeting basic needs and maintaining traditional cultural identity will often involve the same actions and the same values. They are not mutually exclusive to a people whose identity and culture are tied so closely to the land and resources. Any construct wherein they are separated is artificial and not reflective of an Aboriginal worldview.

Making even a preliminary assessment of HCV5 and HCV6 involves a set of value judgements. When addressing these issues, we have tried to keep in mind the following guiding principles:

- Like people's lives, HCVs are interconnected;
- Local people must be intimately involved;
- Cultural information is sensitive and must be treated with respect;
- Building on existing processes and initiatives; and

- Consultation must be an ongoing process.

Guided by the above principles and the overall objectives of an HCVF assessment, we offer the following recommendations and next steps to help guide WWF, Al-Pac and other partners through completing the HCV5 and HCV6 assessment.

1. Establish a Working Group

- Al-Pac and other partners should consider whether they feel it necessary to establish an FSC Certification Working Group. This group could consist of Al-Pac employees and other people with an interest in the area including local community representatives and experts in the field. The main purpose of the working group would be to guide the completion of the certification process, determine the steps that need to be taken and develop methodologies and processes for their completion. This group could, for example explore such things as defining HCV5 and HCV6 terms, making preliminary judgements on where HCVs could be present, making a preliminary list of HCV5 and HCV6 indicators, designing and even delivering a consultation process, and could be the primary contact for local people.

2. Review the Basics

- ProForest, in its HCVF toolkit, and the FSC National Boreal Standard, both outline a series of questions to help guide the assessment of HCV5 and HCV6. These questions need to be revisited in light of the above guiding principles. This must be conducted with input from a wide variety of people with an interest in the area, especially local communities. These questions should be used in identifying, designing and guiding major steps fulfilling HCV5 and HCV6 requirements. Table 2 looks at the questions posed in the National Boreal Standard and offers some preliminary comments on how they might be improved and revised.
- Included here is the need to integrate HCV5 and HCV6. We argue that these two HCVs cannot be considered separately. Meeting basic needs and maintaining traditional cultural identity will often involve the same actions and the same values. Moreover, we argue that the maintenance of cultural identity is in fact a basic need. They cannot be mutually exclusive to a people whose identity and culture are tied so closely to the land and resources, thus they must be considered together.
- The basic terms and phrases used in HCV5 and HCV6 must be defined. This process is difficult as the definition of phrases such as 'essential to meeting basic needs' and 'critical to maintaining traditional cultural identity' involve value judgements. A working group can determine initial definitions. These definitions should be refined, or if necessary completely revised, through local community consultation, as it is truly only local people who will be able to determine what their basic needs are and what they see as critical elements to their culture.

Table 2—Preliminary Guidance on Addressing Guiding Questions

The National Boreal Standard provides a number of questions to guide the identification of HCV5 and HCV6. We believe that these two categories must be considered together. The left side of the table below indicates the questions posed in the National Boreal Standard, while the right side provides some guidance and offers alternate questions that may better assist in the identification of HCV5 and HCV6.

These are only a few preliminary suggestions on how to work with the questions already provided in the Boreal Standards. It will be essential to engage in continual consultation with local people and other stakeholders to ensure the proper questions are being asked to generate information useful in identifying HCV5 and HCV6.

Are there local communities? (this includes people living in and adjacent to the FMA area)	Determining if there are communities in the area under question is important, but this question should be expanded to explore the characteristics of the community. These characteristics will help to determine and understand people's use and occupancy of the land. Other questions to ask could include: what is the average income?; what is the range of incomes within communities?; how does the average income differ between communities?; do people get the majority of their resources from the land?; what is the rate of participation in traditional and non-traditional occupations?; what is the ethnic make-up of each community?; is the population within and across communities ethnically homogenous?; what are the population's characteristics (age distribution, gender, etc.)? Effort will also have to be made to determine if communities located outside of the FMA use the land and resources within the FMA. This could be done through a review of existing traditional land use and occupancy studies for the communities in question and delineating their community footprint. Alternately, one could also look at the locations of registered traplines, and/or speak with active land users.
Is anyone making use of the forest for basic needs/ livelihoods?	We believe that the procurement of resources is an act of maintaining cultural identity, and that maintaining cultural identity is in fact a basic need. Therefore all use of the forest constitutes a basic need. This notion, however true, may not be practical to implement. Local communities are best placed to determine what constitutes their basic needs and their definition of livelihoods. These terms will require concrete definition (by a potential working group and by local people) before posing the question to community members and others. Further, it might be best to assume that people are making use of the forest and instead ask, 'how are people making use of the forest for their basic needs/livelihoods?' The answers to this question will begin to reveal the resources people depend on the most and those that are the most important.

Is this need fundamental?	Local communities will have to be consulted to determine what the term fundamental constitutes and to determine thresholds. It is important to note that in our experiences, Aboriginal people view the world much more holistically than non-Aboriginal people. When asked, what resources are the most important or fundamental, the answer you will most commonly receive is, 'it's all important.' Aboriginal people recognize the inherent interconnection among all living things and making the distinction between them is not an exercise they normally engage in. The person conducting the consultation will have to be aware of this. Alternate approaches might include asking what might happen if certain resources were unavailable, and if such were to happen would that be acceptable? Answers to these questions can be complimented with looking at, for example, how much various resources are harvested (how many moose per family, how many logs, etc.), and where the source(s) of the resource is.
Is this the sole source of the value?	Better phrasing for this question might be 'are there other sources of the value that will still meet your basic needs and be sustainable over the long term?' Here one must think that although many food-based resources are available in the local store, these are not necessarily affordable over the long term. The same is true if people were to have to travel further to obtain the resources. The cost of fuel and the time taken from wage-earning labour might simply be unacceptable and un sustainable. Looking at income levels and socio-economic status will also aid in determining the suitability of alternate resource sources.
Is there a significant impact to the local communities as a result of a reduced supply of these values?	Following the precautionary principle, it is better to assume that there would be an impact from a reduced supply of any given value. The question then becomes: is this impact acceptable? The significance of the impact can only be measured by the people being affected. Consider asking instead: 'what would happen if a given value was no longer available or if the amount of a given value was reduced? Is this impact acceptable to local people over the long term?' One might wish to go further and ask what an acceptable impact might be. The answers can be used to gauge the flexibility of a community and the other opportunities that may be available.
Are there values that, although may be a small portion of the basic needs, are nevertheless critical?	The physical amount of a resource procured should not be a determining factor in how important the resource is. As noted, all use of the forest is a basic need. Basing an assessment on the amount harvested, as mentioned, is misleading as it does not take into account the cultural importance of a resource. Asking this question is probably unnecessary.

Is the traditional cultural identity of the local community particularly tied to a specific forest area?	This report has argued that the cultural identity of these Aboriginal people is tied to the forest. Their identity is formed through their interaction with the land and resources that surround them, through their travels throughout the region and through the harvesting of resources. While specific points and areas, for example burial and historic sites, are important and are a direct reflection of the culture of the people, the overall use of the landscape must be not be discounted.
Do communities consider the forest culturally significant?	The whole forest is critical to cultural identity, if it were not people would simply not live there. It is suggested that a better phrasing would be 'How do local communities consider the forest area culturally significant?' Answers to this question would provide some insight into the relationship between Aboriginal people and the forest. This could be accomplished by using a series of building and linked questions. For example you have indicated that you use the land in many ways? Then ask are there special places on the land (burial sites, medicine areas, story places)? How do these sites and places differ from other places on the land? What would happen if such places were disturbed? The answers lead to the point below.
Will changes to the forest area potentially cause an irreversible change to the culture?	Rephrasing the question may provide more fruitful answers. Consider: How will changes to a forest area cause changes to the culture? Are these changes acceptable to local people?
Is the particular forest in question more valuable than others?	Rephrasing this question to elicit additional information and insight into how the local Aboriginal people view the forest area would be much more beneficial in determining HCV6. For instance, the question could be rephrased to ask 'Why is this forest important? What makes this forest important? Are there other forest areas you consider more important than this one? Why? (See 2 boxes above.)

- Local indicators of HCV5 and HCV6 status must be identified and defined. The definitions of terms and phrases noted previously should be a guide in this identification. Again, a working group can make an initial list of potential indicators, some of which are noted in section 8.3. The list should be refined and revamped through community consultation designed specifically to explore appropriate indicators.
- Finally, we must consider how to deal with the diverse Aboriginal population of the FMA. In particular, how does one deal with such a large number of Aboriginal users from differing groups? It is important not to treat the area and the communities as a homogenous group in order to uncover the richness of land use and occupancy.

3. **Explore, Gather & Organize Existing Relevant Digital Information**
   - Al-Pac was not forthcoming with a complete list of digital data holdings. While they provided a list of cultural land use data, it was rudimentary at best. Al-Pac notes in its public documents that they have consulted widely and investigated many issues of concern related to wildlife, cultural and heritage resources, tourism and recreation, have participated in various traditional land use studies and have a fairly comprehensive digital database covering all aspects of environmental management. Using the current study as a guide, information relevant to HCV5 and HCV6 needs to be sifted from the Al-Pac database**.** The various data on plants, animals, trees should all be gathered in one place, along with any community-based information related to their use and occupancy including traplines, trains, cabins, burial, sacred and historic sites.
   - Following Al-Pac procedures, local trappers are consulted about the site specific locations of cabins, burial sites and other important places. While this important information may be used at the local operational level it does not appear to be available to higher planning levels. Al-Pac must ensure that local level information relevant to HCV5 and HCV6 is available for higher level planning.
   - Al-Pac should explore government, industry and NGO digital databases as well for relevant information. Attempts should be made to acquire this information to ensure Al-Pac's digital library contains information on all values mentioned in this study
   - All relevant digital data should then be organized within Al-Pac's GIS database for ease of use and access. It is suggested that the broad values as noted in this report could serve as the basis for this organization. This organization can be further broken down by categorizing the values into landscape level values and site specific values. These categories will aid the forest practitioner in determining how best to manage values.
   - Al-Pac has entered into a knowledge sharing agreement with the Big Stone Cree that ensures that traditional land use information is available for management purposes. Efforts should be made by Al-Pac, the WWF or other partners, to enter into

knowledge sharing agreements with other First Nations and Metis settlements. Such agreements would help build relations between Al-Pac and the First Nations, and would allow access to traditional land use information for planning processes and ultimately in the identification of site specific values under HCV5 and HCV6. This community-based information will be invaluable in complimenting the ecological information and in the development of management plans.

4. **Conduct a Gap Analysis**
   - Using the review and organisation of the data described above as a base, conduct a data gap analysis and devise a strategy for acquiring or otherwise dealing with missing information. Both digital and non-digital data should be reviewed. Attempts should be made to acquire traditional land use studies not previously available for the current study and any digital traditional land use data that may be held by the various Aboriginal groups. Research conducted by CEMA in the identification of land use and occupancy and traditional knowledge studies conducted in the regional municipality of Wood Buffalo would be extremely helpful. These reports should be available to the public in September 2004.

5. **Begin Mapping Values**
   - The values listed should be mapped and overlapped with other HCVs for the identification of 'hot spots.' Data used should include that produced by government, industry, NGOs and communities. We anticipate significant overlap between ecological and landscape features and areas of traditional use and importance.
   - These maps would also be useful in community consultations to explore the values already identified and their locations, and to get feedback from local communities on Al-Pac's progress thus far. This process could identify particularly important areas, areas that have been missed, and can be used to define a community use area or footprint.
   - Using these maps in the consultation process also ensures that information is as up-to-date as possible, and acts as a verification process for the data.
   - For values distributed over a large area, their general habitat should be mapped, including any migration routes, water crossings, calving or post calving grounds. These are the places that are essential for the survival of the animal generally. This data should be complimented data concerning where the people actually go to harvest the resource. This includes the harvest areas, kill sites and access routes. Overlapping ecological data with cultural data, illustrates where the resource and the people interact, an essential aspect in HCV5 and HCV6 identification.

6. **Enhance the Consultative Process**
   - Al-Pac is engaged in a process to inform the local Aboriginal leadership about the FSC certification process with a focus on FSC Principle 3: Indigenous Rights. This process could be strengthened by incorporating HCV5 and HCV6 consultation. This would provide opportunities to discuss

conservation values, Aboriginal views on basic needs, and aspects of cultural identity; it would also provide an opportunity to look at the values already identified and begin identifying those that meet HCV5 and HCV6 criteria.

- A working group can be integral in developing an appropriate consultation process.
- Consideration should be given to involving experts in the development of this process.
- Consultation processes should be as interactive and participatory as possible.
- These consultations should be viewed as a capacity building process and a means to draw Aboriginal people into Al-Pac's efforts to acquire certification. In this manner Aboriginal people will be full and complete participants in the certification process.
- Actual consultation can take many shapes such as community meetings and workshops, household/individual interviews and meetings, a school programme and/or the distribution of communication pieces developed by Aboriginal leaders, Al-Pac, FSC Canada and/or WWF. A variety of techniques is often the most effective. These need to be as intensive as possible and should reach the widest variety of people in the community (leadership, youth, women, elders, etc.). A feedback loop and extensive communication plan should also be developed here.
- Consultation could be tiered. Each session should have 2 general components. The first component should be educational, reviewing what FSC is all about, their place in the process and why their participation is so necessary. The second component should focus on a topic/issue that requires input from local people. These could include, for example, reviewing the basic terms used in HCV5 and HCV6 and establishing some definitions, looking at the mapped recourses, verifying their accuracy, reviewing which resources are used most often, reviewing and refining a list of indicators, etc. These topics should be brainstormed and ordered appropriately and a series of consultations (workshops, household interviews, etc.) developed after to ensure a natural flow. The results of each consultation should then be incorporated into the next consultative process.
- Consultation should also be viewed as an opportunity to explore other issues, including recognizing and dealing with proprietary traditional land use information, and ensuring sensitive data (such as the locations of burial sites or medicine plant sites) is dealt with appropriately to ensure no adverse effects are felt by local communities.
- Al-Pac's satellite offices and the knowledge of the people working there could prove invaluable in designing a consultative process and ensuring the identification and involvement of key people.
- Consideration should be given to establishing small FSC committees

within each First Nation. These committees, consisting of, for example, people directly involved in resource development, active land users and those interested in FSC certification, could be called upon for more intensive consultation (a level which is often unavailable in larger community meetings). These committees could provide guidance on feedback gathered from larger community workshops, and help develop future actions.

These recommendations and next steps can help guide Al-Pac in the completion of a full HCV5 and HCV6 assessment for their FMA area, while ensuring they are asking the right questions, gathering the right information, working with the right people and ultimately identifying the right places and values.

Bibliography & Works Cited

Alberta Pacific Forest Industries Inc.

"Trapping Management Guide."

2004. "Forest Stewardship Council (FSC) Forest Management Certification." Information Pamphlet.

2001. "Forest Stewardship Report 19991-2000." Alberta Pacific Forest Industries: Boyle, Alberta

Alberta Wilderness Association, Albertans for a Wild Chinchaga, CPAWS & the Federation of Alberta Naturalists

2001. "Structural Impediments to FSC Certification in Alberta: Overcoming Barriers to Well Managed Forests." FSC Environment Chamber: Edmonton, Alberta.

Athabasca Chipewyan First Nation

2003. Athabasca Chipewyan First Nation: Traditional Land Use Study. Athabasca First Nation: Fort Chipewyan, Alberta.

2003b. Footprints on the Land: Tracing the Path of the Athabasca Chipewyan First Nation. Athabasca First Nation: Fort Chipewyan, Alberta.

Bigstone Cree Nation & Metis People of Kituskeenow.

1999. Kituskeenow Cultural Land Use and Occupancy Study. Arctic Institute of North America: Calgary Alberta.

deCardinal, Joseph R.

1996. "Fort Chipewyan Community Profile and Attitudes & Perceptions, 1995-1996."

Dempsy, Hugh A.

1997. Indian Tribes of Alberta. Glenbow Museum: Calgary, Alberta

Ecoplan International.

1999a. "Traditional Values Study: Preserving Our Culture & Building Our Future."

1999b. "Traditional Land Use Study: "He Taught Them to Value the Land."

1999c. "Traditional Pursuits Study: Creating Jobs form the Inside Out."

EJ McCullough & MC Wilson Fedirchuk McCollough & Assocaites Ltd.

1982. "A Prehistoric Settlement-Subsistence Model for Northeastern Alberta, Canstar Oil Sands Ltd. Bituminous Sands Leases 33, 92 and 05: A Preliminary Statement." Prepared for Canstar Oild Sands Ltd. Calgary Alberta.

Forest Stewardship Council Canada Working Group (FSCCWG)

2003a. "National Boreal Standard, Draft 2.1." Forest Stewardship Council.

2003b. "Companion Document to the National Boreal Standard." Forest Stewardship Council.

Fort McKay Environmental Services.

1997. "A Survey of the Consumptive Use of Traditional Resources in the Community of Fort McKay." Fort McKay, Alberta.

1996. "The Community of Fort McKay Traditional Uses of the Renewable Resources on the Proposed Suncor Steepbank Mine Site." Fort McKay, Alberta.

1995. "A Profile of the Extended Community of Fort McKay, Alberta." Fort McKay, Alberta.

Golder & Associates.

1996. "Socio-Economic Baseline Report for the Wood Buffalo Region."

Energy & Natural Resources, Resource Evaluation & Planning Division
1985a. "Lakeland Sub-Regional Integrated Resource Plan." Government of Alberta.

1985b. "Big Bend Sub-Regional Integrated Resource Plan." Government of Alberta.

Hickey, Clifford.
1999. "White Fish Lake First Nation Land and Resource Use Study: Incorporating Traditional Knowledge with GIS Technology." Sustainable Forest Management Network.

Marles, Robin J., Christina Clavelle, Lisa Monteleone, Natalie Tays and Donna Burns
2000. Aboriginal Plant Use in Canada's Northwest Boreal Forest. UBC Press: Vancouver.

Natcher, David
2000. "Arriving at Appropriate Criteria and Indicators for Sustainable Forest Management; A First Nation's Perspective."

Northern River Basins Study
1996. "Northern River Basins Study Final Report."

ProForest
2003a. The High Conservation Value Forest Toolkit Part 1: Introduction." ProForest: Oxford, UK.

2003b. The High Conservation Value Forest Toolkit Part 2 Defining High Conservation Values at a National Level: a practical guide." ProForest: Oxford, UK.

2003c. The High Conservation Value Forest Toolkit Part 3: Identifying and Managing High Conservation Value Forests: a guide for forest managers." ProForest: Oxford, UK.

Schramm, T. & Naomi Krogman.
2001. *"Caribou Mountains Critical Wildlife Habitat & Traditional Ecological Knowledge Study."* Sustainable Forest Management Network.

Schramm, T., N. Krogman, R.J. Hudson & M.M.R. Freeman.
2002. *Caribou Mountains Critical Ungulate Habitat & Traditional Ecological Knowledge Study*: A GIS Analysis." Sustainable Forest Management Network.

Slobidon, Richard
1981. "Subarctic Metis," in Handbook of North American Indians, Volume 6. June Helm, (ed). Smithsonian Institution: Washington, D.C.

Smith, James G.E
1981a. "Western Woods Cree," in Handbook of North American Indians, Volume 6. June Helm (ed). Smithsonian Institution: Washington D.C.

1981b. "Chipewyan," in Handbook of North American Indians, Volume 6. June Helm (ed). Smithsonian Institution: Washington, D.C.

Stuart Adams & Associates.
1998. "Fort Chipewyan Way of Life Study, Final Report." Stuart Adams & Associates, Vancouver, B.C.

1998. "Fort Chipewyan Way of Life Study, Summary Report." Stuart Adams & Associates, Vancouver, B.C.

Sustainable Resource Development
1996. "Fort McMurray-Athabasca Oil Sands Subregional Integrated Resource Plan." Government of Alberta.

Timoney, Kevin
2003. "An Environmental Assessment of High Conservation Value Forests in the Alberta Portion of the Mid-Continental Boreal Forest Ecoregion." Treeline Ecological Research: Sherwoodpark, Alberta.

Wein, Eleanor E., Jean Henderson Sabry & Fredrick T. Evers
1991. "Food Consumption Patterns and Use of Country Foods by Native Canadians near Wood Buffalo National Park, Canada." *Arctic*, vol. 44 no. 3. Pp. 196-205

Westworth, Brusnyk & Assocaites Ltd.
1996. "Baseline Study for Fur Trapping in the Suncor Study Area."

Whole Note Contract Services Ltd.
1983. "The Traditional Economy of the Slave River Area." Canmore, Alberta

Websites:

Forest Standards Council or Canada	www.fsccaanda.org
Alberta-Pacific Forest Industries Inc.	www.alpac.ca
Centre for Indigenous People's Nutrition	www.cine.mcgill.ca
Canadian Parks & Wilderness Society	www.borealcenter.ca
Canadian Parks & Wilderness Society (Edmonton)	www.cpaws-edmonton.org
Aboriginal Health Conference	www.Aboriginalhealth.net
Northern River Basins Study	www3.gov.ab.ca/env/water/nrbs/index.html
Department of Aboriginal Affairs	www.aand.gov.ab.ca
Arctic Institute of North America	www.ucalgary.ca/aina
Canadian Circumpolar Institute	www.ualberta.ca/~ccinst
Sustainable Forest Management Network	www.sfm-1.biology.ualberta.ca
Scott Polar Research Institute	www.spri.com.ac.uk
Metis Settlements General Council	www.msgc.ca
Global Forest Watch	www.globalforestwatch.ca

Appendix One

First Nations & Metis Settlements within the Al-Pac FMA Area

The following First Nations and reserves are found within the Al-Pac FMA area:

- Bigstone Cree Nation
  - Wabasca No. 166
  - Wabasca No. 166a
  - Wabasca No. 166b
  - Wabasca No. 166c
  - Wabasca No. 166d
  - Jean Baptiste Gambler No. 183
  - Desmarais Settlement
- Heart Lake First Nation
  - Heart Lake No. 167
  - Blue Quills First Nation Indian Reserve
  - Heart Lake Indian Reserve No. 167a
- Fort McMurray First Nation
  - Clearwater No. 175
  - Gregoire Lake No. 176
  - Gregorie Lake No. 176A
  - Gregorie Lake No. 176b
- Fort Mckay First Nation
  - Fort McKay No. 174
  - Namur River No 174a
  - Namur Lake No. 174b
- Chipewyan Prairie First Nation
  - Janvier No. 194
  - Cowper Lake Indian Reserve No. 194a
  - Winefred Lake Indian Reserve No 194b

Other Aboriginal people, while not in the settlement area are consulted with by Al-Pac including:

- Buffalo Lake Metis Settlement
- Kikono Metis Settlement
- Lac La Biche Metis Settlement
- Mikisew Cree First Nation
  - Devil's Gate No. 220
  - Old Fort No. 217
  - Allison Bay No. 219
  - Sandy Point No. 221
  - Collin Lake No. 223
  - Cornwall Lake No. 224
  - Charles Lake No. 225
  - Dog Head No. 218
  - Peace Point No. 222
- Athabasca Chipewyan First Nation
  - Chipewyan No. 201
  - Chipewyan No. 201a
  - Chipewyan No. 201b
  - Chipewyan No. 201c
  - Chipewyan No. 201d
  - Chipewyan No. 201e
  - Chipewyan No. 201f
  - Chipewyan No. 201g

Appendix Two

Contact People

Over the course of this study, attempts were made to contact dozens of people, organizations and research institutions for useful information on resources, values and the Aboriginal people in the Al-Pac FMA area. Unfortunately, we were unable to reach a vast number of them, even after repeated attempts. The people we were ultimately able to speak with are as follows:

Al-Pac:

- Sandra Cardinal, Corporate Director, Aboriginal Affairs
- Simon Dyer, Forest Ecologist
- Doug Willy, Aboriginal Affairs

Environmental NGOs:

- Tony Iacobelli, World Wildlife Fund
- Rick Schneider, Canadian Parks & Wilderness Society
- Jill Sturdy, Canadian Parks & Wilderness Society
- Helene Walsh, Canadian Parks & Wilderness Society
- Trish Bailey, Ducks Unlimited Canada, Boreal Initiative

Mikisew Cree First Nation:

- Melody Lepine, Environmental Coordinator, Industrial Relations

Athabasca Chipewyan First Nation:

- Lisa King, Environmental Specialist, Industrial Relations Corporation
- Blair Whenham, Director of Industry Relations

Fort McMurray No. 468 First Nation:

- Ian Walker, Environmental Specialist, Industry Relations Corporation

Athabasca Tribal Council:

- Eric Davis, Director of Environmental Affairs

Little Red River Cree:

- Jim Webb

Academia/Research Institutions:

- David Hickey, Research Area Leader, Sustainable Aboriginal Communities, Sustainable Forest Management Network
- Vic Adamowicz, Professor, Rural Economy Department, University of Alberta

Appendix Three

Values & Resources Used by Aboriginal People in the Al-Pac FMA Area

The tables presented on the following pages are a result of information synthesized from various sources on the land use and occupancy of the Aboriginal people in the Al-Pac FMA area. These sources are listed below. While it is undoubtedly true that other Aboriginal groups, than those listed in the tables, make use of the resources, data was simply not available to verify this, and it was thus not recorded.

- Athabasca Chipewyan First Nation: Traditional Land Use Study
- Footprints on the Land: Tracing the Path of the Athabasca Chipewyan First Nation
- Kituskeenow Cultural Land Use and Occupancy Study
- "Fort Chipewyan Community Profile and Attitudes & Perceptions, 1995-1996"
- "Traditional Values Study: Preserving Our Culture & Building Our Future"
- "Traditional Land Use Study: "He Taught Them to Value the Land"
- "Traditional Pursuits Study: Creating Jobs form the Inside Out"
- "A Survey of the Consumptive Use of Traditional Resources in the Community of Fort McKay"
- "The Community of Fort McKay Traditional Uses of the Renewable Resources on the Proposed Suncor Steepbank Mine Site"
- "A Profile of the Extended Community of Fort McKay, Alberta"
- "White Fish Lake First Nation Land and Resource Use Study: Incorporating Traditional Knowledge with GIS Technology"
- Aboriginal Plant Use in Canada's Northwest Boreal Forest
- "Caribou Mountains Critical Wildlife Habitat & Traditional Ecological Knowledge Study"
- " Caribou Mountains Critical Ungulate Habitat & Traditional Ecological Knowledge Study: A GIS Analysis"
- "Fort Chipewyan Way of Life Study, Final Report"
- "Food Consumption Patterns and Use of Country Foods by Native Canadians near Wood Buffalo National Park, Canada"
- "The Traditional Economy of the Slave River Area"

Big Game

Species	Aboriginal Use	Uses	General Habitat
Barren Ground Caribou	• Ft. McKay First Nation • Athabasca Chipewyan First Nation	• Meat • Hides for clothing & shelter	
Bear (Black & Grizzly)	• Whitefish Lake First Nation • Ft. McKay First Nation • Little Red River Cree • Athabasca Chipewyan First Nation • Métis	• Harvested only when there is a need for fat	• Numbers are low now & are not seen as often • Peace River is important habitat in late summer • Older forests with uprooted trees provide hibernation habitat • Found around lakes in the spring in search of duck eggs
Buffalo/ Bison	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Little Red River Cree • Athabasca Chipewyan First Nation	• Meat, but not a regular staple of the diet	• small herd range north-east of Wabasca-Desmarais, west of the Athabasca River between townships 84 & 87 & ranges 19 & 22
Elk	• Bigstone Cree Nation & Metis	• Not important for local consumption	• South of Calling Lake in the area of township 68 to 71 & Ranges 17 to 24 (placed there as part of a provincial program to move elk from provincial park land
Moose	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Little Red River Cree • Athabasca Chipewyan First Nation • Community of Fort McKay • Métis	• Main staple of the diet • Moose hides traditionally used for shelter & clothing • Bones traditionally used for making tools	• Muskeg areas dominated by low shrub, tree & grass cover • Areas with willow stands like cut blocks • Near lakes and rivers during calving season to avoid wolf predation • Thick brush • Forage in the vicinity of ponds, especially beaver ponds, creeks & lakes as they eat water plants as well as twigs • Each moose needs approximately 1km^2 of habitat for foraging
Mule Deer	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Athabasca Chipewyan First Nation • Métis • Community of Fort McKay	• Meat	• Heavy bush & forested areas • Feed in meadows & along rivers & streams • Same habitat as white-tail deer • Most dominate deer species in the area

Big Game Continued…

Species	Aboriginal Use	Uses	General Habitat
White-Tail Deer	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Athabasca Chipewyan First Nation • Community of Fort McKay • Métis	• Meat • Secondary subsistence resource taken when the opportunity arises • Preference over Mule Deer	• Heavy bush & forested areas for hiding • Forest edges & meadows for foraging • Very adaptable and therefore are very abundant
Woodland Caribou	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Little Red River Cree • Athabasca Chipewyan First Nation	• Meat • Hides for clothing & shelter	• Range in a north-south corridor generally paralleling the Athabasca River east of Calling Lake, Wabasca-Desmarais & Peerless-Trout lakes • Range in an east-west corridor north of Chipewyan Lakes in an area between the 22nd & 24th baseline; Wabasca River is the western side of this corridor & the Athabasca River is the eastern side • East side of Athabasca River • Central plateau region with the exception of burned areas(Schramm & Krogman 2001) • In the spring caribou migrate from the plateau to the southern rim of the Caribou Mountains; during summer the areas around the lakes of the plateau are of particular importance as cows retreat there to have calves as it is easier escape from wolves

Fur Bearers

Species	Aboriginal Use	Uses	General Habitat
Beaver	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Little Red River Cree • Athabasca Chipewyan First Nation • Métis	• Fur • Great importance in the early fur trade • Traditionally robes made of the pelts • Meat	• Minimum water depths of 1.5 meters • Water supply must be permanent & the level stable • Areas that have small lakes spread over a large area • Wide distribution • Prepared tree food is poplar, & aspen willow
Black Bear	• Bigstone Cree Nation & Metis • Little Red River Cree • Athabasca Chipewyan First Nation • Métis	• Fur	• Mixed wood forest with a variety of tree & shrub species • Rolling hills are good denning sites • Eats berries, roots, garbage & carrion
Coyote	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Little Red River Cree • Métis	• Fur	•
Fisher	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation	• Fur • Economically valuable	• Mixed wood forest with half being conifers & wetland alder • Den in large deciduous trees, hollow logs or tree cavities, etc. • Eat porcupine, carrion, plant material, hares, small mammals, birds, reptiles, amphibians, eggs, fish & insects
Fox	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Little Red River Cree • Athabasca Chipewyan First Nation	• Fur	• feed on green shoots, berries, mice, birds & small mammals including muskrat • found in open meadows

Fur Bearers Continued...

Species	Aboriginal Use	Uses	General Habitat
Grizzly Bear	• Bigstone Cree Nation & Metis • Little Red River Cree • Métis	• Fur • Meat	• Found along river systems & • Prefer areas with rolling hills • Must have adequate forest cover with an abundance of food
Hare (Rabbit is often the local term used)	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Little Red River Cree • Athabasca Chipewyan First Nation • Community of Fort McKay	• Fur • Meat	•
Lynx	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Little Red River Cree • Athabasca Chipewyan First Nation	• Fur • Economically valuable	• Feed on hare/rabbit, beaver & mice • Select for successional habitat, irregular patterns of logging &/or fire areas •
Marten	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Little Red River Cree • Métis	• Fur	• Mature conifer or mixed wood forests • Eat rodents, grouse & other animals similar to what the fisher consumes • Higher populations in more isolated areas • Found in pine or spruce forests where there are squirrels
Mink	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation	• Fur • Economically valuable	• semi-aquatic

Fur Bearers Continued...

Species	Aboriginal Use	Uses	General Habitat
Muskrat	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Little Red River Cree • Athabasca Chipewyan First Nation • Métis	• Fur • Important source of meat, cooked fresh or smoked • one of the most economically valuable animals trapped	• Standing water bodies 1.5 to 2 meters deep • Use cattails & sedge species for building dens or may share a loge with a beaver • Prefer good shoreline coverage for burrowing • Forage on cattail, reed grass, sedge, horsetail, bulrush & duck weed • Wide distribution • Require a good supply of emergent vegetation for food, cover and house building and an adequate depth of water to ensure over winter survival • 10 year population cycle • Habitat provided by perched basins
Porcupine	• Bigstone Cree Nation & Metis • Athabasca Chipewyan First Nation • Métis	• meat • Quills used as traditional ornaments	• live in spruce & mine stands • Dens located in cave or hollow roots of large spruce trees
Red Squirrel	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Little Red River Cree • Athabasca Chipewyan First Nation	• Fur • Meat	• Feed on conifer seeds & buds, white spruce, black spruce & jack pine • Also feed on mushrooms, rosehips & bear berries • Winter eat aspen, poplar buds, rose hip seeds & bark
River Otter	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Athabasca Chipewyan First Nation • Métis	• Fur	• Adapt to a variety of aquatic habitats • Most commonly found in tributaries of major unpolluted drainages • In Kituskeenow they area found where lowland marshes & swamps interconnect with winding streams & small lakes • Abandoned beaver dens
Skunk	• Athabasca Chipewyan First Nation	• Fur • Meat • Oils used for medicines	

Fur Bearers Continued...

Species	Aboriginal Use	Uses	General Habitat
Weasel/Ermine	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• Fur	• Found in spruce-aspen areas or coniferous areas • Like successional forest edge, muskeg, marshes & river banks
Wolf	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Little Red River Cree • Athabasca Chipewyan First Nation • Métis	• Fur	
Wolverine	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Athabasca Chipewyan First Nation	• Fur	• Large territories • Feed on a wide variety of resources • Least abundant • Found from the Barren lands to farming country

Birds

Species	Aboriginal Use	Uses	General Habitat
Blue Heron	• Bigstone Cree Nation & Metis • Ft. McKay First Nation	• Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals	
Cormorant	• Bigstone Cree Nation & Metis	• Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals	
Crane	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals	
Ducks	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Little Red River Cree • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food source • Gizzards & livers eaten • Eggs eaten • Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals	• Must have adequate water levels • Saline Lake • Goose Island (Athabasca Chipewyan)
Eagle	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation	• Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals • Eggs are harvested & important to the diet	
Geese	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Little Red River Cree • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food source, taken in the spring • Gizzards & livers eaten • Eggs eaten on occasion • Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals	• Goose Island (Athabasca Chipewyan)

Birds Continued...

Species	Aboriginal Use	Uses	General Habitat
Grouse	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Little Red River Cree • Athabasca Chipewyan First Nation • Community of Fort McKay	• Significant food source • Taken on an opportunistic basis • Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals	
Loon	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation	• Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals	
Owl	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Community of Fort McKay	• Occasional food source • Taken mostly when hunting or trapping • Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals	
Pelican	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation	• pouches made from the head	
Ptarmigan	• Whitefish Lake First Nation • Ft. McKay First Nation • Athabasca Chipewyan First Nation • Community of Fort McKay • Métis	• Food source • Taken on an opportunistic basis	• Colder the winter the more that are present
Seagull	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation	• Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals	
Swan	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Athabasca Chipewyan First Nation • Community of Fort McKay	• Down, feathers, quilting waterproof bags, ornaments made from beaks, nails & feathers, bait to catch fur bearing animals • Meat (dried • Grease made from the fat	• Goose Island (Athabasca Chipewyan)

Fish

Species	Aboriginal Use	Uses	General Habitat
Chub	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Athabasca Chipewyan First Nation • Community of Fort McKay	• Rarely eaten • Used for bait	• Fished along the shorelines
Goldeye	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food	
Grayling	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• Food	• In streams & connecting rivers & lakes • Steepbank River
Ling Cod	• Athabasca Chipewyan First Nation • Community of Fort McKay	• Food • Eaten in small quantities • Popular in commercial fishing	
Perch	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Athabasca Chipewyan First Nation	• Food	• Prefer Lakes to rivers • Chipewyan Lake
Pike (Jackfish)	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• Flesh • Eggs • Liver	• Found in all lake & major rivers • Naumr Lake • Gardiner Lake • Fort Chipewyan

Fish Continued...

Species	Aboriginal Use	Uses	General Habitat
Red & Longnose Suckers	• Bigstone Cree Nation & Metis • Athabasca Chipewyan First Nation • Community of Fort McKay	• Eaten in small quantities • Often caught in large quantities to feed dogs	
Trout (Rainbow, Lake, Char)	• Bigstone Cree Nation & Metis • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food	• Prefer Lakes to rivers • Peerless Lake • Trout Lake • North Wabasca & South Wabasca Lakes
Tullibee	• Whitefish Lake First Nation	• Food	•
Walleye (Pickerel)	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food • Sold commercially, especially in cities in the south	• Found in all lake & major rivers • Trout Lake • North Wabasca & South Wabasca Lakes • Naumr Lake • Gardiner Lake • Fort Chipewyan
Whitefish	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Athabasca Chipewyan First Nation • Community of Fort McKay	• food • preferred for making dry fish as is dries soft • Eggs • Liver	• Found in all lake & major rivers • Namur Lake • Gardiner (moose) Lake • Gregoire Lake • Athabasca River System

Berries

Species	Aboriginal Use	Uses	General Habitat
Blueberry	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food; dye; beads; spiritual ceremonies	• Found with Bog Cranberry on sandy shallow bog covered ground usually with tree cover of pine, aspen & spruce
Bunchberry	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation	• Food; dye; beads; spiritual ceremonies • Flavouring Food	
Chokecherry	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food; dye; beads; spiritual ceremonies	
Cranberry (low bush, high bush & bog)	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food; dye; beads; spiritual ceremonies	• Bog Cranberry Found with blueberry on sandy shallow bog covered ground usually with tree cover of pine, aspen & spruce

Berries Continued...

Species	Aboriginal Use	Uses	General Habitat
Currant (Black & Red)	• Ft. McKay First Nation • Athabasca Chipewyan First Nation		
Gooseberry	• Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation		
Hazelnut	• Bigstone Cree Nation & Metis • Community of Fort McKay	• Food; dye; beads; spiritual ceremonies	
Hazelnut	• Ft. McKay First Nation	• eaten raw or roasted as a high energy food source	
Huckleberry	• Ft. McKay First Nation	•	
Juniper Berry	• Ft. McKay First Nation	• Flavouring Food	
Kinnickinnick (leaves of the Bear Berry)	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation	• The actual berry of theplant is not used, but the leaves were a traditional source of kinnickinnick (tobacco)	
Pincherry	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation	• Food; dye; beads; spiritual ceremonies	
Raspberry	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation	• Food; dye; beads; spiritual ceremonies	• Areas such as roadsides, railway right-of-ways, old community sites & bulldozed bush trail

Berries Continued...

Species	Aboriginal Use	Uses	General Habitat
Rosehip	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food; dye; beads; spiritual ceremonies • Make drinks for health purposes	• Areas such as roadsides, railway right-of-ways, old community sites & bulldozed bush trail
Saskatoon Berry	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• Food; dye; beads; spiritual ceremonies	
Strawberry	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation	• Food; dye; beads; spiritual ceremonies	• Found in open areas, but are less plentiful that most others
Twisted Stalk	• Ft. McKay First Nation		

Trees & Plants

Species	Aboriginal Use	Uses
Alder	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• used for smoking or drying fish & meat
Aspen Poplar	• Ft. McKay First Nation	•
Balsam Fir	• Bigstone Cree Nation & Metis • Ft. McKay First Nation	• Sap used to treat colds, as well as other ailments
Birch	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• Hardwood for the construction of toboggans & snowshoe frames • Birch bark is used in making crafts, ornaments & canoes • Sap used to make syrup
Bulrush	• Ft. McKay First Nation	• Food (source of starch & sugar)
Cattail	• Ft. McKay First Nation	• Food (source of starch & sugar)
Common (stinging) Nettle	• Ft. McKay First Nation	• Food • Make dyes
Common Plantain	• Ft. McKay First Nation	• Food
Common Tansy	• Ft. McKay First Nation	• Food • Sometimes used as a spice
Jackpine	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• favourite wood for cooking & heating
Lodgepole Pine	• Bigstone Cree Nation & Metis • Ft. McKay First Nation	• Sap used to treat colds, as well as other ailments
Moss	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• Used in moss bags as diaper material

Trees & Plants Continued...

Species	Aboriginal Use	Uses
Poplar (White & Black)	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Athabasca Chipewyan First Nation	
Spruce (Black & White)	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• For constructing log homes & buildings
Tamarack	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• Knows as Indian hardwood & was used to make toboggan runners & snowshoe frames
Willow	• Bigstone Cree Nation & Metis • Ft. McKay First Nation • Athabasca Chipewyan First Nation	• Branches for the construction of sweat lodges • Willow root is the preferred some to cure meat & fish • Branches are the best to make baskets & crafts • Bark boiled to make tea used as a cure for headaches, colds, stomach problems

Herbs & Medicinal Plants

Species	Aboriginal Use	Uses	General Habitat
Alders	• Whitefish Lake First Nation		
Aspen	• Whitefish Lake First Nation		
Balsam Fir	• Whitefish Lake First Nation		
Balsam Root	• Whitefish Lake First Nation		
Blueberry Roots	• Ft. McKay First Nation	• make an infusion used to treat diabetes	
Common Yarrow	• Ft. McKay First Nation	• Food • Make teas or infusions for health reasons	
Ground Fungus	• Bigstone Cree Nation & Metis	• Soaked until soft & used for dressing open wounds or cuts	
Horsetail	• Ft. McKay First Nation		
Labrador Tea	• Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• used to make an infusion for health or medicinal drink • also used as a social beverage • Stomach pains	• Water tolerant species
Miniature Sunflower	• Bigstone Cree Nation & Metis	• Roots used for heart ailments	
Mint	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• used as a tea additive or boiled in tea to cure chest colds • Eaten raw	
Mountain Ash	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Athabasca Chipewyan First Nation	• Roots are boiled & used for menstruation cramps • For heart illness	
Pitcher Plant	• Athabasca Chipewyan First Nation	• For Heart Disease	

Herbs & Medicinal Plants Continued...

Species	Aboriginal Use	Uses	General Habitat
Poplar Bark	• Athabasca Chipewyan First Nation		
Poplar Buds	• Athabasca Chipewyan First Nation	• Wounds & Cuts	
Rat Root	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Ft. McKay First Nation • Ft. Chipewyan Area (Athabasca Chipewyan, Metis & Mikisew Cree) • Athabasca Chipewyan First Nation • Community of Fort McKay	• for upset stomach, toothache or headache • all purpose medicine	• Water tolerant species
Seneca Root	• Bigstone Cree Nation & Metis		
Snake Root	• Bigstone Cree Nation & Metis		
Spruce Acorn	• Athabasca Chipewyan First Nation	• Rashes	
Spruce Gum	• Athabasca Chipewyan First Nation	• For Cuts • Acted as an antiseptic & prevented scarring	
Sweetgrass	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation • Athabasca Chipewyan First Nation	• Cleansing	
Tamarack Bark	• Athabasca Chipewyan First Nation	• colds & sore throat	
Tree Sap	• Athabasca Chipewyan First Nation		
White Tipped Flower	• Athabasca Chipewyan First Nation	• As an energizer	
Willow Bark	• Bigstone Cree Nation & Metis		
Willow Fungus	• Bigstone Cree Nation & Metis • Athabasca Chipewyan First Nation	• used for earaches • Mosquito repellent	
Wintergreen	• Bigstone Cree Nation & Metis • Whitefish Lake First Nation		