6.3 FIRST NATIONS INFORMATION REQUIREMENTS

6.3.1 Existing Conditions

6.3.1.1 Study Areas

The Tumbler Ridge Wind Energy Project is located approximately 6 km southwest of the town of Tumbler Ridge, in the south Peace River Region of British Columbia. This region stretches from the Peace River southward and westward to the Rocky Mountains and eastward to the Alberta border. The northern and eastern parts of the area feature plains and lowlands of the Peace River valley, whereas the south and west are characterized by foothills and the eastern slopes of the Rockies.

For the purposes of this assessment, study areas have been defined for the Project area, the Local Study Area (LSA) and the Regional Study Area (RSA). The Project area refers to the specific Project Footprint where clearing and construction activities will occur, including areas such as turbine pads, transmission line corridors and new roads. The LSA refers to the Project area with a 500 m buffer. The RSA encompasses the Treaty 8 First Nations territory which overlaps with the biophysical study area (as outlined in Section 5). Unless otherwise specified, the RSA is the Project area with a 5 km buffer.

6.3.1.2 Valued Social Components (VSCs)

For the purposes of this assessment, two types of VSCs have been identified to date. The first identified VSC is Traditional/Cultural Activities. These activities are integral to the health of the Nations' cultures. Examples of a Traditional/Cultural Activity include, but are not limited to, hunting, fishing, trapping, plant gathering or spiritual beliefs practice. The second identified VSC is Traditional/Cultural Use Sites. These are locations where community members have or may carry out traditional activities. Examples of a Traditional/Cultural Use Site may, among other things, include a trapline, a cabin, an individual's hunting area, a burial or a plant gathering area.

These VSCs are based on the results of the Traditional Use Studies proposed and conducted by the First Nations listed in Section 11, and carried out in conjunction with Finavera, as a part of this assessment. The VSCs are also based on Treaty Rights in the RSA. In addition, they are derived from consultation with the First Nations conducted to date. Continuing consultation between Finavera and the First Nations may identify additional VSCs. Finavera is committed to resolving further VSCs through consultation with First Nations.

6.3.1.3 First Nations Communities

The south Peace River Region of British Columbia lies entirely within the boundaries of Treaty 8 (**Figure 6.3-1**). It includes an area of some 324,900 square miles (84,149,100 ha): what is now northeast British Columbia, the northern half of Alberta, the northwest corner of Saskatchewan, and the Northwest Territories south of Hay River and Great Slave Lake. First negotiated in 1899, Treaty 8 has not included every aboriginal group within this vast treaty territory. Subsequently, most First Nations within the territory became adhesions to the Treaty, most recently the McLeod Lake Indian Band in 2000.

All the First Nations in the B.C. Peace River Region of Treaty 8 are signatories to the treaty. In exchange for surrendering their lands, signatory Indian Bands (First Nations) would receive Indian Reserves based on 640 acres for each family of five; families or individuals who wished to live off reserve would receive "land in severalty to the extent of 160 acres to each Indian" (Indian Claims Commission, 2007). Treaty 8 also included provisions for education, farm stock, farm implements, ammunition, twine and clothing.

Treaty 8 also provided signatory First Nations with the right:

> To pursue their usual vocation of hunting, trapping and fishing throughout the tract surrendered as heretofore described, subject to such regulations as may from time to time be made by the Government of the country, acting under the authority of Her Majesty, and saving and excepting such tracts as may be required or taken up from time to time for settlement, mining, lumbering, trading or other purposes. (Government of Canada, 1966)

In the Peace River Region of British Columbia, all eight First Nations are signatories to Treaty 8: Blueberry River First Nations, Doig River First Nation, Fort Nelson First Nation, Halfway River First Nation, McLeod Lake Indian Band, Prophet River First Nation, Saulteau First Nations and West Moberly First Nations. **Figure 6.3-1** shows the boundary of Treaty 8 in BC and the locations of the eight BC signatory First Nations.

With the exception of Blueberry River First Nations and the McLeod Lake Indian Band, the above Treaty 8 First Nations belong to the Treaty 8 Tribal Association (T8TA), incorporated under the BC *Societies Act* in 1982 (T8TA, 2011). The T8TA mission is to unite the First Nation signatories of Treaty 8

to protect, secure and manage the land and environment for economic and cultural uses for all future generations in the true spirit and intent of Treaty 8. As such, the T8TA is a service delivery organization funded by the Department of Indian Affairs and Northern Development to provide advisory services and claims research. The T8TA reviews its members' concerns, assesses economic development projects, and negotiates consultation agreements regarding economic development projects that affect the treaty rights and other interests of the T8TA member First Nations.

Section 11 Order First Nations

Pursuant to the Section 11 Order, Finavera was directed by EAO to engage with Treaty 8 First Nations who may be impacted by the proposed Project. This includes Finavera requesting information about how a First Nation's treaty rights, land, members, and interests may be impacted by the proposed Project, and identifying possible ways in which those impacts can be avoided or mitigated. On November 5, 2010, the BC EAO issued a Section 13 Order that amended the earlier Section 11 Order. The Section 13 information requirements for First Nation information are included in the Section 11 discussion presented herein. The Section 13 Order added the Doig First Nation to the list of First Nations to be consulted. BC EAO required that five First Nations be consulted: Doig River First Nation (DRFN), Halfway River First Nation (HRFN), McLeod Lake Indian Band (MLIB), Saulteau First Nations (SFN) and West Moberly First Nations (WMFN).

This section provides an overview of the First Nations' communities, land use setting and planning, services, population demographics and social profile, governance, economy, reserves, ethnography, language and history.

Finavera recognizes the Saulteau First Nations, West Moberly First Nations, Halfway River First Nation, McLeod Lake Indian Band, and the Doig River First Nation territory and areas of cultural and historical significance and respects their reverence of the land and its resources. Additionally, Finavera shares in the First Nations' commitment to social, economic and environmental sustainability. To this end, the information on the First Nation communities has been drawn from publically available socio-economic data and supporting information on First Nations, from the results of the traditional use study (SFN's Culture and Traditions Study) completed to date, and through ongoing consultation conducted with the First Nations.

Demographic Profile Summary

A general summary of demographics and social conditions is presented here. Detailed community information for each community follows the summary.

The Saulteau First Nations and the West Moberly First Nations, whose communities are located respectively at the east and west ends of Moberly Lake, are the closest First Nations communities to the Project, at 81 km and 87 km away. The Halfway River First Nation is located on the north side of the Halfway River above its confluence with the Cameron River. The McLeod Lake Indian Band is based at McLeod Lake on the western slopes of the Rocky Mountains. The Doig River First Nation is located approximately 30 km northeast of Fort St. John to the east of the Beatton River (**Table 6.3-1**).

Table 6.3-1: Section 11 Order First Nations and Their Proximity to the Project

First Nation	Name and Size of Primary Indian Reserves	Location	Linear Distance from Project Area
Doig River First Nations	Doig River IR206 1000.8 Hectares	Approx. 30 km northeast of Fort St. John, on the Doig River, to the north of the mouth of the Osborn River.	160 km
Halfway River First Nation	Halfway River IR168 3988.9 hectares	North bank of Halfway River approximately 75 km northwest of Fort St. John on the Upper Halfway (Mile 95) Road	149 km
McLeod Lake Indian Band	McLeod Lake IR1 815.2 Hectares	Southeast end of McLeod Lake approximately 88 km north of Prince George on Highway 97	119 km
West Moberly First Nations	West Moberly Lake IR168A 2033.6 Hectares	West end of Moberly Lake approximately 20 km north of Chetwynd off of Highway 29	87 km
Saulteau First Nations	East Moberly Lake IR169 3025.8 Hectares	East end of Moberly Lake, 14 km north of Chetwynd on Highway 29	81 km

Population data for each of the five Section 11 Order First Nations is presented below (**Table 6.3-2**). Data from 2010 is available through INAC for Doig River, Halfway River and West Moberly First Nations (INAC 2010). All communities with data from 2010 show an increase in on-reserve populations, with a matching decrease in off-reserve populations, with the exception of no change in off-reserve populations for West Moberly. Population statistics presented here may vary subtly from those numbers reported by the T8TA. Federal sources were used for consistency in calculations.

Table 6.3-2: Registered On and Off Reserve Populations of Section 11 Order First Nations

Community	On-reserve	Off- Reserve*	Total		
			Male	Female	TOTAL
Doig River	131	137	139	129	**268**
Halfway River	162	90	131	121	**252**
McLeod Lake	94	397	n/a	n/a	**491**
West Moberly	85	131	101	115	**216**
Saulteau	275	602	n/a	n/a	**877**
TOTAL Study Area	**747**	**358**	**511**	**495**	**1105**

Source: INAC 2010, with the exception of McLeod Lake and Saulteau numbers, which are derived from 2006 Statistics Canada

* Off reserve counts include registered members who are off-reserve, or on reserves other than their own.

Table 6.3-3 illustrates changes in population between 2001 and 2006 for the First Nations included in this assessment. The average household size is 2.6 persons, which is slightly higher than the provincial average of 2.5. Due to privacy constraints, data was suppressed for HRFN, which had an average household size of 3.0 in 2001. The provincial average household size for First Nations in 2006 was 3.2 persons. While the provincial trend for First Nations in BC saw a population growth, the First Nations in the assessment had a population decline, except for the McLeod Lake Indian Band, which grew by 34.3%.

Table 6.3-3: Study Area First Nation Population Characteristics

First Nation	Population Change (2001 to 2006)	Reserve Land (Sq Km)	Private Dwellings	Average Household Size
Doig River	-10.8%	11.97	49	2.5
Halfway River	-25.5%	41.14	52	-
McLeod Lake	34.3%	10.25	47	2
West Moberly	-1.9%	20.34	22	2.8
Saulteau	-16.7%	31.69	102	2.9
Study Area FN Average	*-4.12%*	*23*	*54.4*	*2.6*
British Columbia	*5.3%*	*924,815.43*	*1,788,474*	*2.5*

Source: Statistics Canada Community Profiles 2006.

Indian and Northern Affairs Canada developed the Community Well-Being (CWB) Index to measure on a standardized basis over time the quality of life in First Nations and Inuit communities compared to non-First Nations communities. The assigned CWB index 'score' is based on various indicators of socio-economic well-being such as: 1) education; 2) labour force activity; 3) income; and 4) housing. The CWB scores, ranging from 0 to 100, are derived from the Statistics Canada Census of Population, most recently updated in 2006.

Information for most First Nations in the assessment has been suppressed for privacy purposes; however, the available information shows that First Nations in the area, similar to other B.C. First Nations, live in conditions below the non-First Nations Average, (**Table 6.3-2**).

Table 6.3-4: First Nation Community Wellbeing Scores

First Nation	CWB Score
BC First Nations Average	62
BC non-First Nations Average	80
Doig River	58
Halfway River	N/A
McLeod Lake	67
West Moberly	N/A
Saulteau	N/A

Source: INAC, 2006

Each First Nation in this assessment has access to different facilities on-reserve. All communities have an administrative centre, a health centre (where nurses or physicians may or may not make scheduled visits), heat, hydro and water utilities, as well as garbage and sewer utilities. Children from WMFN and SFN are bused to Chetwynd to attend school, and students at McLeod Lake are bused to Mackenzie for classes. HRFN students attend a rural school 20 minutes east of the reserve. Further details on the facilities for each First Nation are listed in the descriptions below. **Table 6.4-5** summarizes the facilities and services on the reserves of the First Nations in this assessment.

Table 6.4-5: Summary of Facilities and Services on Reserve

First Nation	Facilities and Services On-reserve
Doig River	Administrative and cultural centre, learning centre, convenience store, day care, rodeo grounds, health centre, recreation centre, heat/hydro/water utility, garbage/sewage facility
Halfway River	Band administration office, health centre, school, recreation centre, heat/hydro/water utility, garbage/sewage facility
McLeod Lake	Band administration office, health centre, recreation centre, heat/hydro/water utility, garbage/sewage facility (each house has a septic field), community hall, church, general store, hotel, postal service, and day care (in progress)
Saulteau	Band administration office, health centre, daycare, teen centre, school, heat/hydro/water utility, garbage/sewage facility, band hall, healing centre and learning centre
West Moberly	Band administration office, health centre, recreation centre, heat/hydro/water utility, garbage/sewage facility, community center, fire protection and postal service

Source: Aboriginal Canada Portal, 2009

Saulteau First Nations

The Saulteau First Nations has one reserve, East Moberly Lake No.169, situated on 3025.8 hectares of land. Located at the east end of Moberly Lake, the First Nation is 25 km northwest of Chetwynd and approximately 81 km northwest from the Tumbler Ridge Project. Officially, according to the 2006 Census data, SFN has 877 members with 275 on reserve (INAC, 2010).

Unofficially, as of June 2010, the Saulteau First Nations had a membership of almost 1,000[1]. Most SFN members identify with Saulteau cultural practices and beliefs passed down from eastern Saulteau ancestors. Over the years, Saulteau people have intermarried with neighbouring Cree, Iroquois and Beaver peoples, some of whom live on the SFN reserve and have become band members (Napolean, 2005).

The SFN peoples were originally comprised of Saulteau and Cree speakers. The Saulteau name is from the French "saulteurs," referring to "the people of the rapids" (Asikinack, n.d.). Originally the name Saulteau applied to the Ojibwa people found at Sault Ste Marie, but later came to refer to all speakers of the western most dialect of the Ojibwa people (Yinka Dene Language Institute, 2006). On their long journey west from southern Manitoba, the SFN people intermixed with Cree people of the plains and woodlands resulting in the adoption of the Cree language among other cultural aspects. While the SFN people retain affiliation with Saulteau culture, Cree and Beaver have become the main languages of the SFN community, with only a few elders remaining that speak Saulteau (Yinka Dene Language Institute, 2006).

SFN election system by custom is based on traditional Saulteau Chief and Headmen governance. The band has a Chief and four Councillors, each of whom represents one of the five founding SFN families. Each family nominates a leader who becomes a Councillor, and then general membership elects a Chief from among these five family heads. Elections are held every three years.

[1] Nesoo Watchie Resource Management Ltd., Saulteau First Nation Culture and Traditions Study: Finavera Wind Power Energy Project Impact Analysis, Interim Results. Nov. 25, 2010.

Most Saulteau members live on-reserve where current housing conditions are insufficient to meet the needs of the population. The reserve also has a band office, band hall, healing centre, daycare, teen centre and a learning centre. A number of members operate small and medium-sized businesses on- and off- reserve, such as Three Nations Ventures, Six Nations Ventures, and 4 Evergreen Resources. The SFN are involved in cattle ranching and farming, gravel excavation and sales, and silviculture.

Police services are provided by the nearby community of Chetwynd, and fire protection is provided by the Moberly Lake Volunteer Fire Department. There are no medical or dental services provided in the community and members are required to go off-reserve to nearby Chetwynd or further to Dawson Creek or Ft St John to receive these types of health care.

Over the past several decades, SFN has entered into a number of benefit-sharing agreements with industry and governments interested in doing business in the SFN area – primarily in resource extraction (Napolean, 2005). These arrangements provide generally reliable revenue to the First Nation, as well as some training and employment opportunities for members.

SFN continues to place economic, cultural and social importance on the seasonal round, and every summer, hunting, trapping and gathering camps are established by the community. Many SFN people stay at these camps to engage in traditional activities. Youth learn Saulteau culture and language, and how to process meat, berries and medicines. These SFN camps maintain Saulteau traditional culture in the present and the future.

For the West Moberly and Saulteau First Nations, the Peace Moberly Tract is a key supply area for traditional foods (also known as country foods). It also allows for the continued practice of traditional activities such as trapping, hunting and fishing that remain an essential component of life. The area provides medicinal plants, as well as products used in cultural ceremonies, crafts and in the fabrication of items such as canoes, drums and snowshoes (PMT SRMP, 2006). Additionally , the SFN has identified within the Peace Moberly Tract is an Area of Critical Community Interest located approximately 75-80 km northwest from the Tumbler Ridge Wind Project.

West Moberly First Nations

Prior to 1975, the West Moberly First Nations and Halfway River Bands were one Indian Band known as the Hudson Hope Band. The total registered population of the West Moberly First Nations is now 216, with 85 members living on reserve (INAC, 2010).

The WMFN formed from an Athapaskan-speaking group originally residing in the Athabasca River region. The WMFN consider themselves Dunne-Za or Beaver and they traditionally speak Beaver. The Dunne-Za are believed to have moved to the Peace River region in the mid-1800s after being forced out the Athabasca River area by the Knisteneaux [Cree] (PMT SRMP, 2006). West Moberly Lake 168A, a former Dunne-Za summer camp, is the Band's only reserve. Situated on 2033.6 hectares of land at the west end of Moberly Lake, it is about 25 km northwest of Chetwynd and approximately 87 km northwest from the Tumbler Ridge Project.

The WMFN is governed by a Chief and four councillors, each from a key family group. The Chief is elected, whereas each family determines its own method of selecting its councillor. The Chief does not have a vote in council.

Situated adjacent to Highway 29, most roads on reserve are gravel. Facilities on reserve include a band office, a community centre, fire protection, health centre and postal service. More recently, the Nation has constructed the Dunne-za Lodge on the north shore of Moberly Lake complimented with guest cabins for rental accommodations. The West Moberly First Nations reserve is located within the Chetwynd ambulance area, and involves approximately 30 minutes travel time. Fire services are provided through the Moberly Lake Volunteer Fire Department. A cooperative on-reserve policing program has been established with the Chetwynd RCMP.

The health centre focuses on educational and prevention programs including: infant immunizations, a mental health councillor (on a one day/week basis), a pre-natal nutrition program, a drug and alcohol prevention program, massage therapy and an adult in-home support program. Similar to other small rural communities in the Province's hinterland, there are no medical or dental services provided in the community with the members required travelling to the nearby (approximately25 km) community of Chetwynd or further to Dawson Creek or Fort St. John.

Of the 31 housing units in the West Moberly First Nations community, all have potable running water, indoor plumbing, electrical heat (Aboriginal Canada Portal, 2008; most recent data). The WMFN has a sand water filtration system with a chlorinated reservoir. Sewage is treated in a lagoon system with discharge into a wetland on reserve.

As there is no school in the community, students commute to nearby Moberly Lake or to Chetwynd to attend school. An after-school program (Dakiii Yadze) which includes tutoring sessions, post-secondary education support and short-term training support are provided by the community. A goal for the First Nation is to have greater numbers of students graduate from grade 12 and complete post-secondary training.

The community is involved in a variety of economic activities. Dunne-Za Ventures LP is wholly owned and managed by the WMFN and provides construction, trucking and other services. Dunne-Za has won several awards, including Aboriginal Business of the Year at the Northern Business and Technology Awards in January 2009. The WMFN is actively involved in forestry management and completed an inventory of timber resources for the band's forestlands (IR 168A and Summit Lake) in February 2007 (PMT SRMP, 2006). Economic activities taking place in the region surrounding West Moberly First Nations include forestry, agriculture, retail trade and oil and gas. The First Nation is a signee with the District of Chetwynd and the Saulteau First Nations in the Chetwynd Community Forest. Members have had opportunities to obtain employment in forestry, and in the oil and gas sector. Hunting, trapping and fishing remain culturally and economically significant activities (PMT SRMP, 2006; Pers. Comm. Clarence Willson, Roland Willson; Dean Dokkie, Sept. 2010).

Halfway River First Nation

Prior to 1975, the Halfway River First Nation and the West Moberly First Nations formed the Hudson Hope Indian Band. The Halfway River First Nation is part the Beaver linguistic group who traditionally occupied lands in the Chowade River watershed (Stoney River). The Halfway River Indian Reserve, allotted as early as 1925, became the permanent settlement of the Band in 1961. Prior to 1961, the principal residences of the Halfway River people were at Stoney, along the Chowade River (located north of the present-day community). The First Nation currently has one reserve, Halfway River 168, 3989 ha,

located 75 km northwest of Fort St. John. The registered population of the Halfway River First Nation is 252 (INAC, 2010), with 162 members living on reserve.

Halfway River First Nation has a band administration office, health centre, school, and recreation centre. There is no fire hall or police detachment on reserve. The First Nation relies upon these and other essential services from Moberly Lake (Volunteer Fire Department), Wonowon, and Fort St. John. There are no medical or dental services provided in the community. Fort St. John, approximately 130 km northeast, is the nearest urban centre with medical and dental facilities.

The governance system of the Halfway First Nation is the Indian Act electoral system (INAC, Community Profiles, 2010) that provides a representative (councillor) for every 100 members, resulting in the Nation having three councillors.

The Halfway River First Nation is involved in gravel excavation and sales. Members work mainly in manufacturing/construction, sales and service, primary industry and the agriculture/resource based industry. The Band continues to practice traditional activities and has hunting camps throughout the HFRN area.

The Halfway River First Nation expects that all resource developers within the Halfway River First Nation treaty area avoid infringement on Treaty rights. The Halfway River First Nation belongs to the Treaty 8 Tribal Association. The First Nation also is in discussions with the province of BC, and Canada outside the treaty process.

McLeod Lake Indian Band

The McLeod Lake Indian Band members refer to themselves as the "people of the rock." Their language belongs to the Beaver-Sarcee Sekani branch of Athapaskan. The Band, along with others at Fort Ware and Ingenika, is Sekani. Traditionally the McLeod Lake Sekani utilize an area covering about 108,000 $km^{2.}$ It is bounded on the south by the Arctic-Pacific divide near Summit Lake and extends eastward to the border of BC and Alberta (McLeod Lake Indian Band, 2010). The Band has 19 reserves totalling 20,053 ha. The main community is at I.R. No. 1 and I.R. No 5, close to the unincorporated village of McLeod Lake, about 45 km south of Mackenzie, and on Highway 97 about 140 km north of Prince

George. Members also live in Prince George and Mackenzie. McLeod Lake Indian Band has a registered population of 491 (Registered Indian Population by Sex and Residence 2010, INAC).

The Sekani lived a semi-nomadic lifestyle relying on the land to provide them with resources such as caribou, bear, moose, beaver, birds, fish and berries for sustenance. The Sekani traded animal skins with the Carrier for salmon. With the establishment of Fort McLeod in 1805, the McLeod Lake Sekani (Tse'Khene) began to participate in the fur trade. Their traditional economy continued until the 1960s, when construction of the W.A.C. Bennett Dam and Williston Lake, BC Rail, and the John Hart Highway significantly impacted hunting and trapping. The loss of much of their traditional livelihood and domestic economy brought about social decline and despair in the Band.

The McLeod Lake Indian Band encourages members to remain on reserve and for off reserve members to return. The McLeod Lake Indian Band has approximately 50 housing units on reserve, all with potable running water, electricity and connection to a septic tank. Available housing does not meet current demand, however with the recent agreements made with the Province and the private sector, including partnership agreements, the MLIB leadership are focused on addressing housing stock as this is a priority for the leadership (Pers. Comm., Chief Derrick Orr, August 2010).

Facilities on reserve include a band administration office, health centre, recreation centre, community hall, church, daycare centre, general store, hotel and postal service. A daycare centre project is currently underway with lot clearing completed in July of this year (MLIB *Travelling Feather*, August 2010). There is no local fire service in the community with emergency services provided from Mackenzie or Bear Lake (64 km south on Hwy 97). There is no school on reserve. Like most small rural communities, members are required to seek medical care off-reserve as there are no medical services provided in the community. More recently, the MLIB provides addictions counselling, crisis intervention as well as treatment and detox referral services on-reserve (MLIB *Travelling Feather*, August 2010).

By the early 1980's the McLeod Lake Indian Band became involved in logging and Duz Cho (Big Tree) Logging Ltd. was formed. Today the company is one of the largest logging contractors in British Columbia and has been impacted by the damaging effects of the mountain pine beetle. In an attempt to diversify its economy, the Band decided to participate in the oil and gas industry, forming Duz Cho Construction Ltd.

In 2004, the Band bought 80% of shares in Summit Pipeline Services Ltd – a business involved in pipeline construction, rehabilitation and maintenance. The Band has encouraged members to set up their own businesses and have supported this through business development initiatives. Existing businesses include: owner-operated equipment, forestry and construction businesses, sport fishing, accommodation, and steel sales and fabrication. The McLeod Lake Indian Band is actively involved in economic activity, including through the McLeod Lake Indian Band Development Corporation, established in 2002 as an incorporated entity entirely owned by McLeod Lake Indian Band to conduct business and make investments on behalf of the Band where an incorporated company is required (McLeod Lake Indian Band, 2008). McLeod Lake Indian Band provides training opportunities that lead to employment through the Prince George District First Nations Society.

In 2006, McLeod Lake Indian Band secured a five-year non-renewable forest license from the Province, in accordance with Section 19 of the Forest Act, that provides access to 175,000 cubic metres of wood in both the Mackenzie and Prince George Timber Supply Areas. The volume augments the band's existing harvesting operations under Duz Cho Logging.

Through Duz Cho Logging, the MLIB became one of the four investors in the Mackenzie Pulp Mill Development Corporation that ultimately preserved the mill. MLIB was also key in securing fibre security for the mill, increasing the ventures viability; "Without the participation of McLeod Lake [Indian Band] in this innovative approach to ensuring a fibre supply, the mill simply would not have happened" (Tanner Elton, Managing Director of the Mackenzie Pulp Mill Development Corporation; MLIB *Travelling Feather*, August 2010).

In 2008, the Ministry of Energy, Mines and Petroleum Resources, McLeod Lake Indian Band, and the B.C. Oil and Gas Commission signed a consultation agreement that defines the roles, responsibilities and processes for consultation on oil and gas applications, and provides the necessary monies to ensure the MLIB have the required capacity to manage for this resource within the Treaty 8 territory. The agreement replaces the 2002 consultation and is for a three-year term, with provisions for extension until April 30, 2013.

In August 2010, the MLIB signed the Economic and Community Development Agreement with the Province of BC providing MLIB with a share in the mineral tax revenue generated by the Mt. Milligan mine located west of McLeod Lake, in northeastern B.C.

In 1987, the McLeod Lake Indian Band requested to join Treaty 8. In 2000, the Band ratified the Treaty 8 Adhesion Agreement with the federal and provincial governments. The Agreement provided two new Indian Reserves in Mackenzie and Bear Lake, $38 million in trust, 20,000 ha of forest lands, and fee simple lands. The McLeod Lake Indian Band is pursuing a self-government agreement. The Band also is negotiating within the British Columbia Treaty Commission six-stage treaty process, and has completed Stage 2. The Band is not affiliated with a tribal council. Since the settlement of land issue has been dealt with through the Treaty 8 adhesion, the Band's intent to negotiate a self-government agreement in its Indian Reserve lands is outlined in the Statement of Intent (Ministry of Aboriginal Relations and Reconciliation, 2010).

Doig River First Nation

Doig River First Nation has a registered population of 268, with approximately 131 living on reserve (INAC, 2010). Named for the Doig River that runs through the reserve lands, the First Nation is located near Rose Prairie, 70 km northeast of Fort St. John on approximately 1000 hectares (2500 acres). The reserve was established in 1952. One of four Dunne-za/Beaver Indian Bands in the Peace River area, the Doig River area was a traditional hunting and camping region. The Doig River First Nation's traditional hunting and trapping grounds include vast areas that extend in all directions from the current reserve at *Hanáṣ Saahgé* (Doig River). The Doig River First Nation traditionally speaks Beaver (Doig River First Nation, 2008).

In 1794, Rocky Mountain Fort was established in the Doig River First Nation's traditional territories resulting in the Nation participating in the fur trade. As a result of the fur trade, European culture is reported to have gradually impacted the Nation's traditional way of living.

In 1900 the Nation signed Treaty 8, and by 1914 the Nation was allotted reserve land at *Gat TahKwǫ̂* (Montney), one of the traditional gathering places. In spite of the Nation being allocated reserve land, they continued for several decades to travel throughout their traditional land.

Until the mid-1950s, the Nation is reported to have lived a semi-nomadic lifestyle, traveling seasonally throughout the Peace River country from the Rocky Mountains to the plains of Alberta to hunt, gather, and socialize with other Dane-z̲aa kinship groups. The main community is located on Doig River Indian Reserve #206, approximately 70 km northeast of Fort St. John (with a total of two reserves on 1358.1 hectares) (First Nations Profiles, INAC 2010). The surrounding area is rich in natural resources, including major oil and gas deposits. In July of 2003 the Nation opened a new Cultural and Administrative Centre on the Doig River Reserve. The facility includes a museum, a gym, administrative and health care offices, community gathering spaces, and outdoor rodeo grounds. The Cultural Centre is a place where the Nation membership gathers to socialize and to dance traditional dances. Other facilities available on the reserve include a learning centre, a convenience store, and a day care (Doig River First Nation 2007).

The Doig River community members gather each year at Doig River for the Nation's annual "Doig Days" celebration. At this educational event, visitors learn about Dane-z̲aa culture and traditions including: moose hide processing, drumming and singing, cooking, hunting and trapping, archaeology, and games.

Today, the Doig River First Nation people are living in a world that integrates non-aboriginal culture and economy with the Dunne-z̲a traditional knowledge and hunting culture. The Nation is engaged in a range of business ventures and cultural activities that focus on strengthening the economic base, improving the health of the community, and maintaining Dunne-z̲a traditions and language. Economic activities include road building, general contractors, forestry, oilfield, seismic, first aid and safety services and reclamation services (Doig River First Nation 2007).

First Nations Agreements

More recently, the B.C. Treaty 8 First Nations have signed a number of agreements with the provincial and federal governments, as well as with the various industry sectors working within the Treaty 8 territory. For example, in October 2008, the Province and Blueberry River First Nations signed a Final Agreement which united an Economic Benefits Agreement (EBA) and seven Resource Management Agreements which were signed earlier (Ministry of Aboriginal Relations and Reconciliation, 2010). The EBA provided Blueberry with a share of the economic benefits from resource development within the treaty area they have traditionally used and a solid foundation for increased participation in the regional economy. Resource Management Agreements can provide important First Nations oversight in land and

resource decision-making. Uniting these agreements secures collaborative management processes and relationships between BC the First Nation, provincial departments, and other public stakeholders under one agreement.

On May 20, 2010, Chiefs of three Treaty 8 First Nations - Doig River First Nation, West Moberly First Nations and Prophet River First Nation – signed a Final Agreement which united the Amended Economic Benefits Agreement (EBA) with Resource Management Agreements signed in December 2009 and May 2010. The Final Agreement provides the opportunity for the parties to negotiate other agreements during the term of the Agreement.

Since 2005, Treaty 8 First Nations have signed oil and gas consultation agreements with the Province to increase clarity in the consultation process by more clearly defining timelines, creating guidelines, and establishing regular meetings and workshops.

Finavera has engaged with the Doig River First Nation, Halfway River First Nation, McLeod Lake Indian Band, Saulteau First Nations and West Moberly First Nations with the intent to sign Memoranda of Understanding (MOU) governing opportunities for contracting work during the construction stage of the Project. Finavera has signed an MOU with the Halfway River First Nation and is in the process of negotiating agreements with the other Nations. The MOU contains provisions for a royalty payment from the Project to the Nation, opportunities to bid on project contracting opportunities, education and training programs, and a commitment to ongoing consultation. The MOU also contains an acknowledgement from the Nation that it has been adequately consulted. The specific terms of any MOU with a First Nation are subject to confidentiality clauses. The intent of the MOU is to provide a Nation with a long term royalty payment that may be applied to any appropriate community use, and opportunities for capacity building within the community's workforce.

First Nations History

Pre-Contact History (History prior to first contact with Europeans)

The western subarctic, including northeastern British Columbia, has been occupied by people for a very long time. A generalized summary of pre-contact archaeology in British Columbia has been prepared by Knut Fladmark (1982, 1986, 1996) with generalized summaries of the subarctic and western subarctic

available in Donald Clark (1981, 1991). In addition, Helmer (1977) focuses on the Central Interior of B.C., Vickers (1986) summarizes the pre-contact history of Alberta, and Clark (1981) describes western subarctic prehistory. West (1996) compiles several papers by authorities working in central and northern Alaska.

In northeast B.C., only a few archaeological sites have been scientifically excavated and subjected to accurate dating methods. This lack of dated local archaeological sites has forced archaeologists to compare artifacts from northeast B.C. to artifacts with dated contexts from adjacent geographic areas. These comparisons reveal that the pre-contact human history in northeast B.C. spans almost 11,000 years, including three broad time periods: Early Prehistoric, (10,500-7500 Before Present [BP]), Middle Prehistoric (7500/7000-3500/2500 BP), and Late Prehistoric (3500/2500 BP – Contact with Europeans).

In the Early Prehistoric period, a habitable environment developed in this region by at least 11,600 years ago (White 1983; Churcher and Wilson 1979). Artifacts associated with the Early Prehistoric period have been identified at numerous archaeological sites throughout northeast B.C. The Charlie Lake Cave Site (HbRf-39) suggests that the Early Prehistoric period in the region began around 10,500 years BP (Fladmark *et al*. 1984; Fladmark 1996; Handly 1993; Driver *et al*. 1996). Early Prehistoric material culture appears to be broadly comparable to the northern plains of Alberta (Howe and Brolly, 2008). Similarly, later material culture in the Middle Prehistoric is similar to archaeological cultures defined for the Plains. Late Prehistoric styles also mirror the Plains sequence, although a north-south split may be present with Plains styles in the south Peace River Regional District and Yukon styles in the northern portion of the Peace River Regional District (Howe and Brolly 2008). In general, archaeological evidence in the broader region surrounding Fort St. John indicates that the area has been continuously occupied for at least 10,500 years.

Post-Contact History

The earliest documented contact between aboriginal peoples and Europeans in the Peace River region occurred in 1793, when Alexander Mackenzie journeyed through the area. Seeking a trade route between eastern Canada and the Pacific Coast, Mackenzie travelled up the Peace River to Finlay Forks, and then south up the Parsnip River, to the McGregor River, on to the Fraser River from where he followed well-established aboriginal trail systems to the Pacific Ocean. In 1794 the North West

Company established a trading post, Rocky Mountain House, near the confluence of the Moberly and Peace Rivers (Burley *et al.*, 1996). Aboriginal trappers became the primary suppliers of furs to the North West Company in the Peace River region.

Continued exploration of the region by Northwest Company traders John Finlay, James McDougall and Simon Fraser led to the establishment of two additional trading posts. Rocky Mountain Portage was constructed near present day Hudson Hope, and in 1805, Fort McLeod at Trout Lake, now McLeod Lake. These events marked the beginning of continuous contact between aboriginal peoples and Europeans. Aboriginal peoples supplied the posts with furs and wild meats. Initially, both local native trappers and the European fur traders viewed the exchange of furs and trade goods as economically beneficial (Burley *et al.* 1996).

As the fur trade developed in the upper Peace River region, new posts were built, and others became discontinued or relocated. Because Fort McLeod and Rocky Mountain Portage House benefited mainly the Sekani, a Beaver chief requested that the North West Company establish a post on the upper Peace drainage; consequently, in 1806 the Company built Fort St. Johns at the mouth of the Beatton River (Burley *et al*., 1996:33, 82). In the 1860s, Fort St. John was relocated on the south bank of the Peace, directly across from the present day town. In 1872 Fort St. John was moved to the north bank of the river, and finally, in 1925, Fort St. John was relocated to Fish Creek, northwest of the present day community. The expansion of the fur trade in the Peace River region took place over more than a century. In contrast to other parts of the country, conflicts between aboriginal and non-aboriginal inhabitants were few. Aside from minor incidents, only one major conflict occurred. The closing of Fort St. Johns in 1823 resulted in the "Massacre of St. Johns" in which five Hudson's Bay Company employees were killed (Burley *et al*., 1966).

The adoption by aboriginal peoples of the fur trade economy fundamentally changed their way of life. Aboriginal hunting and trapping were the main sources of furs. Aboriginal families increasingly relied on trade goods from the fur companies, and later, on the monetary economy. The aboriginal seasonal round soon integrated trapping as a dominant seasonal pursuit. Soon families came to live regularly at or near the fur trade posts for part of the year.

In 1899, the Federal Government negotiated Treaty 8 with many, but not all, aboriginal groups in the Treaty 8 area. Treaty 8 comprises a vast area of northeast British Columbia, including the Peace River region, northern Alberta, northwest Saskatchewan and a southwest portion of the Northwest Territories. The relative isolation, scattered aboriginal groups, and sparse non-aboriginal settlement at the time of the treaty delayed the establishment of Indian Reserves in the British Columbia Treaty 8 area. The most recent adhesion to Treaty 8 is the McLeod Lake Indian Band in 2000.

Eurocanadian settlement of the upper Peace essentially began in the early 20th century. In 1907, the transfer of the Peace River Block of 14,170 km^2 from British Columbia to Canada facilitated settlement. In 1912 the Block was opened for homesteading, and the first permanent settlers arrived in 1913. The First World War interrupted this first wave of settlement; many settlers enlisted and never returned, but in the post-war period settlement resumed, In the 1920s, drought devastated parts of the prairies, causing farmers to relocate to the Peace River region. The high price of furs also attracted many white trappers to the Peace River in the 1920s and 1930s. These trappers staked out and registered traplines where aboriginals had trapped and hunted for generations, thereby removing part of the base of the aboriginal domestic economy (Weinstein 1979:58-59, 63; Brody 1980:86-99).

It was only after World War II that more intensive land use took place in the Peace River Region. Construction of the Pacific Great Eastern Railroad (now BC Rail), to Dawson Creek, Fort St. John and Fort Nelson expanded the regional economy. The region saw further economic expansion with completion of the Alaska Highway, and later Highway 97, and the W.A.C. Bennett dam. In 1951, the first gas well at Fort St. John went into production, marking the beginning of major industry in the region.

Eurocanadian settlement and industrial development have had long-term, pervasive and cumulative impacts on First Nations in the region (UBCIC 1980, Weinstein 1979, Brody 1981). Roads increasingly opened lands to aboriginal and non-aboriginal peoples previously accessible only by trail. Settlement, agriculture and industry removed many lands from traditional aboriginal use, and put increasing pressures on wildlife populations. Productive hunting areas moved increasingly farther from the growing urban centres. The loss of habitat has compromised traplines, and reduced the fish and game resources.

Ethno-Linguistic Affiliation and First Nations Community History

Culturally, the Doig River First Nation, Halfway River First Nation, Prophet River First Nation and West Moberly First Nations are Beaver people or *Dunne-za* ('real people'). Their language, Beaver, is part of the Athapaskan language group. Today, these communities also include significant populations of, or descendants of, Cree or Saulteau speakers. Both Cree and Saulteau are Algonquian languages (see below).

In 1977, the Fort St. John Indian Band divided into two Indian Bands, the Blueberry River First Nations and Doig River First Nation. The Fort St. John Indian Band was a signatory to Treaty 8, and consequently was allotted an Indian Reserve immediately north of present-day Fort St. John. Following World War II, those reserve lands were sold to the Veterans Association, and then transferred to returning veterans. In 1959, three new Indian Reserves were established for the Fort St. John Indian band, two of which are the current locations of the Blueberry River and Doig River First Nation reserves. Historically, and to the present, Doig River First Nation members have traditionally hunted and trapped the lands within the Beatton River drainage, typically east of the Beatton River.

Prior to 1975, the Halfway River and West Moberly First Nations together formed the Hudson's Hope Band. The Halfway River reserve was allotted as early as 1925, but did not become the permanent settlement of the Band until 1961. Similarly, the West Moberly First Nations reserve was allotted in 1916, but was not permanently occupied until a later date. Prior to 1961, the principal residences of the Halfway River people were at Stoney, along the Chowade River, located north of the present-day community (Weinstein, 1979).

Prophet River First Nation and Fort Nelson First Nation belonged to the Fort Nelson Indian Band, until 1974, when the Prophet River First Nation separated to form their own Indian Band. The Fort Nelson Band signed Treaty 8 in 1910. While the Prophet River First Nation identify themselves as Beaver, the Fort Nelson First Nation are Slavey/Cree (Fort Nelson First Nation 2009). The Slavey are an Athapaskan people, who generally live along the Mackenzie River straddling the border of the Northwest Territories and Yukon Territory, downstream of Great Slave Lake. The Fort Nelson First Nation is the farthest southwest community of Slavey people (Asch, 1981). Prior to establishing a community at the current

Indian reserve, a number of families lived at communities on the Fontas and Kahntah Rivers (located east of the present-day Fort Nelson community) (Needlay, 2008).

The McLeod Lake Indian Band members are Sekani people, closely related linguistically and culturally to the Beaver. Very likely the Sekani and Beaver were originally one people. Pressure exerted on the Beaver by the Cree in the early fur trade period forced western Beaver groups to retreat into the Rocky Mountains and beyond; those displaced Beaver groups became the Sekani (Jenness, 1937:6-7). Sekani peoples traditionally occupied both the eastern and western slopes of the Rocky Mountains in a seasonal round (Denniston, 1981). In 1793, Alexander Mackenzie was the first European to enter the territory of the Sekani. The Sekani contributed heavily to the fur trade economy at the Rocky Mountain Portage House, Fort Grahame, and Fort McLeod posts. The McLeod Lake Indian Band continues to occupy the land adjacent to the Fort McLeod trading post.

The Saulteau call themselves *Nahkawininiwak* (Asikinack, 2006). According to Saulteau First Nations history, the ancestors of the present day Saulteau First Nations formerly lived in southern Manitoba. Because of a lack of wild game, they were starving on their reserve. Canadian law prohibited the Saulteau from butchering their cattle that had been provided by the Canadian government. In desperation, the Saulteau butchered some of the cows for meat, and the RCMP detained several community members. In this dire time, the Saulteau leader *Napaneegwan* ('One Wing') had a vision. He told his people to flee, and find the place revealed in *Napaneegwan*'s vision: a lake below twin peak mountains (Neeso Watchie, 2006). After travelling west for many years, the ancestors of the Saulteau First Nations reached Moberly Lake in 1911. The ancestors felt that Moberly Lake, backed by the Beattie Peaks to the west, fit the place shown in the vision, and they settled there. In 1914, the Saulteau at Moberly Lake became an adhesion to Treaty 8 (Napolean, 2005, Feldberg, 2007, Indian Claims Commission, 2007).

On their long journey west from southern Manitoba, the Saulteau First Nations people intermixed with the Cree people of the plains and woodlands. The Saulteau adopted the Cree language among other cultural borrowings. While Saulteau First Nation retains its affiliation with Saulteau culture, Cree and Beaver have become the main First Nation languages of the community; only a few remaining elders speak Saulteau (Yinka Dene, 2006).

Throughout the 17th and 18th centuries, Cree peoples had established themselves as middlemen in the fur trade industry. Many Cree groups followed the fur trade west, and settled in western Canada throughout the 18th and 19th centuries. The possession of European firearms allowed the Cree to displace other aboriginal groups during the westward expansion. A truce was formed between the Beaver and Cree in the late 1700s at Peace Point, located along the lower Peace River upstream from Lake Athabasca, resulting in the abandonment of the Lake Athabasca region by the Beaver (Calverley, 1980). The Beaver also agreed to remove to the north of the Peace River, while the Cree would remain south of the river (Burley *et al*., 1996). Many Cree people remain in the Peace River region, where they have intermarried with the Beaver and Saulteau. The Cree language remains strong in many Treaty 8 communities.

Overview of the Traditional Economy

Aboriginal groups in northern British Columbia are customarily distinguished by egalitarian societies. Traditionally, they depended on hunting and gathering for their sustenance, and the annual cycle of subsistence activities and settlement was dictated by the seasonal availability of food resources. These groups developed an intricate and intimate knowledge of the landscape and its available resources. The seasonal round was characterized by regulated mobility according to detailed knowledge of where, when, and how land and animal resources were most efficiently accessed. Material technologies were also highly efficient and easy to transport. The material culture for hunting, trapping, fishing, and building technologies were designed to be expedient for mobility and easy replacement; however, the knowledge employed in their construction and use was immense. The material culture was typified by tools of wood, bone, and antler, as well as chipped stone. Basketry, mats, and bark containers were abundant. Dugout canoes were the principal watercraft, and were locally made from cottonwood logs or spruce bark over a pole frame. Game was most often killed from ambush, though deadfalls were used for bears and brushwood enclosures or fences were built to corral deer.

Little is known of the specific seasonal movements of the aboriginal peoples of the Peace River region prior to the arrival of the fur trade which brought the Cree and Saulteau to the region. The ethnographic descriptions provided by anthropologists are based on the modern and historic use of the landscape when traplines and trading posts were already long part of the First Nations economy.

Traditionally, several species of animals were hunted as part of the seasonal round. Large game predominantly included moose, caribou, deer, and bison, but bears and mountain goats would have been hunted when available. Smaller mammals were more important as fur-bearers than supplementary food-sources. These animals continue to be a staple in the First Nations diet and domestic economy. The historic abundance of large hunting game in the Peace River region was documented by Alexander Mackenzie in 1793 at a location thought to be Jim Rose Prairie or Bear Flats (north bank of the Peace River):

> Mr Mackay, and one of the young men, killed two elks, and mortally wounded a buffalo, but we only took a part of the flesh of the former. The land above the spot where we encamped, spreads into an extensive plain and stretches on to a very high ridge, which, in some parts, presents a face of rock, but is principally covered with verdure, and varied with the poplar and white birch tree. The country is so crowded with animals as to have the appearance, in some places, of a stall-yard, from the state of the ground, and the quantity of dung which is scattered over it. The soil is black and light. We this day saw two grisly and hideous bears. (Mackenzie, 1971:164)

The northern communities relied on a number of food plant resources, among them: the highbush cranberry, Saskatoon berry, chokecherry, Indian-potato, and avalanche lily. Pine and spruce trees were used as sources of firewood and bark, while cottonwood trees were used for making dugout canoes. The cambium of lodgepole pine trees was also likely accessed as a food resource, although the use of cambium does not appear to be as widespread or intensive as in the central interior of B.C. Other plants, such as rushes and riparian grasses, were used for weaving materials. A diverse assemblage of additional species was used for medicinal purposes.

The present-day inclusion of First Nations members or administrations within the general wage economy should not be considered at odds with traditional lifeways and activities. The development of a mixed hunting / trapping / gathering / wage labour economy began prior to the arrival of the fur trade, and continues today.

Beaver (Dunne-za)

The hunting economy of the *Dunne-za* is focused on moose. Due to the size of the animal, and its relative abundance, moose provides a very efficient return on effort. The historic seasonal round included a fall moose hunt to provision dry meat. Winter included dispersal to family held traplines, and winter stores were supplemented by available game. Spring included travel to trading posts to trade furs, then participation in an intensive beaver hunt. Smaller hunting groups would usually come together during the summer at the appointed reserves. Also important to the hunting economy are deer, mountain goat and caribou. Due to declines in populations, mountain goat and caribou likely have a diminished role in the current hunting economy compared to the historic period (Brody, 1981).

A number of traplines are registered to Blueberry River First Nation members. The traplines cover an area extending from the area around the Blueberry River reserve northward to the Sikanni Chief River, east to the Milligan Hills, and west to the Blueberry River. This same area is also considered to be the core hunting area of the Blueberry River First Nation people. Lands south of the present day reserve are no longer productive hunting or trapping areas, due to the expansion of agriculture and ranching, as well as industry expansion in forestry and oil and gas.

The Doig River First Nation members have traditionally hunted and trapped within the Beatton River watershed east of the river, north to the Milligan Hills, and east to the Clear Hills in northern Alberta. The southern limit of the hunting and trapping range has been affected by continuing agricultural expansion northward from Fort St. John as well as industry expansion in oil and gas.

The traditional hunting and trapping territories of the Halfway River and West Moberly First Nations are the foothills and mountains of the Rockies. Hunting and trapping occurred as far westward as the Ospika River, located on the western slope of the Rockies in the Rocky Mountain Trench. The Halfway River reserve was allotted as early as 1925, but did not become the permanent settlement of the Band until 1961. Prior to 1961 the typical historical seasonal round would have included occupation along the Chowade River during the snow-free seasons, and dispersal to family trap-lines during the winter (Weinstein, 1979).

Saulteau

Saulteau First Nations people have historically hunted and trapped the lands south of the Peace River, and east of the Rocky Mountains since their arrival in the region in the late 19th century (Leonard, 1995). This area includes lands within the Murray and Sukunka River watersheds, as well as northward within the Kiskatinaw River watershed to the Peace River. With their eastern woodland and plains background, the Saulteau of northeastern B.C. had an economy based on a mix of woodland trapping, fishing, and plains bison hunting culture (Heritage Community Foundation, 2005b). As with the *Dunne-za* described above, moose was and is the mainstay of the hunting economy. The Saulteau First Nations hunting economy also includes deer, mountain goat and caribou. However, as with the *Dunne-za*, declines in wildlife populations, likely have led to a diminished role for mountain goat and caribou in the current hunting economy. Differing from *Dunne-za* groups, Saulteau peoples are more engaged in fishing. Moberly Lake has populations of whitefish, pike, lake trout, greyling, ling cod (burbot), and suckers (**Section 5)** that were caught in a net fishery, although, this technology has declined in recent times due to pressures from the Fish and Wildlife Branch of the provincial government and the increased motor boats on the lake (Weinstein, 1979).

Traditionally, the seasonal round of the Saulteau included winter hunting (moose, caribou, deer), fishing, and trapping in the Rocky Mountain foothills. Spring included trading furs at Chetwynd or Hudson's Hope, followed by the spring beaver and muskrat hunt. Summer was typically spent around Moberly Lake. The fall included a fairly intensive moose hunt to provision dry meat for the winter. Following the fall moose hunt, families again dispersed to family held traplines.

A number of traplines are registered to Saulteau First Nation families. Trapping played a very significant role in the Saulteau economy, but due to declines in fur bearing animals in recent years, as well as a general decline in the prices for furs, the importance of trapping has significantly declined.

Similarly, hunting has also seen a decline in the availability of animal resources and undisturbed animal habitat. Historically, the Saulteau hunted a very large area (as described above), but presently, the core of Saulteau First Nations hunting territory is located north of the present-day reserve, centred around the Moberly and Pine River, as well as Boucher Lakes. There is still a vigorous hunting economy within the Saulteau community.

Sekani

The Sekani historically were a nomadic hunting and gathering people. Completely dependent on the chase, the Sekani pursued game over vast territories. Harmon, a fur-trader, encountered Sekanis in 1810 at Rocky Mountain Portage on the Peace River system. He described the Sekani as a people who lived on both the east and west side of the Rocky Mountains in northern British Columbia. Late fall to early spring was spent on the eastern side of the mountains where large game was plentiful, whereas summers were spent on the western side of the mountains where fishing figured largely in the traditional economy (Harmon, 1957). Today, members of the McLeod Lake Indian Band hold a number of traplines. Hunting and plant gathering remain important for food procurement and both activities are undertaken by community members of all ages (Solonas, 2008).

Cree

The Cree people of northeastern British Columbia began arriving in the region in the late 1700's (Burley *et al.*, 1996). Prior to the arrival of Europeans, both Woodland and Plains Cree were mobile people. Plains Cree are known for their large teepee settlements and their skill at hunting the bison and the wapiti. Woodland Cree also traditionally hunted the bison in addition to other large ungulates found in the boreal forest. They lived in birch bark or hide covered conical lodges, depending on the season and available resources (Heritage Community Foundation, 2002). With the introduction of the fur trade, the Cree continued to move westward, following the fur trade posts and economy. Many Cree in the Peace area first came to the region as guides for fur traders (Kelly Lake Cree Nation, 2008). The Cree people who came to the Peace Region have intermarried with the Beaver and Saulteau people in the area and have influenced those First Nation communities' language and culture as a result.

6.3.1.4 Past, Present and Anticipated Future Use

Past Use

A documentary review of traditional land uses and occupancy of the RSA was carried out by AMEC to identify and document past and current aboriginal uses of land and resources. The study focused on the identification of traditional use areas and traditional resource locations. Five communities were targeted in the documentary review: Doig River First Nation, Halfway River First Nation, McLeod Lake Indian Band, Saulteau First Nations and West Moberly First Nations.

Sources accessed for information include the BC Archives, the internet, published books and articles, and unpublished sources. Information available on the cultural groups, First Nations and aboriginal communities involved in the study was obtained from published ethnographic works. To locate regional histories, an extensive bibliography of local histories (Hale and Barman, 1991) was consulted, as well as a search on the internet for more recent sources. Several regional and local histories were identified and reviewed (Bowes, 1959; Calverley, n.d.; MacGregor, 1952). However, the available information focuses on the Peace River proper as a transportation corridor and on early European settlements, particularly at or near Hudson's Hope, Fort St. John, and Dawson Creek. The history of more recent settlements south of the Peace, is described by Kurjata (1989) for Chetwynd and by Helm (2000, 2001, 2008) for Tumbler Ridge. Some local histories occasionally mention First Nations, but that information is highly generalized and very brief, with little or no geographical context. Instead, the histories focus on Eurocanadian exploration and settlement. Where possible, specific spatial data relating to the Project area was included, however, in most cases there is little available public information on aboriginal land use specific to the Project area. There is often not enough information to identify specific First Nations. Given the limited nature of the publicly available literature, it is recognized than an absence of information does not effectively indicate an absence of use. In the absence of specific spatial data, documents containing more general regional data were referenced.

In addition to the documentary review, comments on land use which were received through the consultation process between Finavera and HRNF, MLIB, SFN and WMFN are incorporated as well. Concerns that were documented during the consultation process are outlined in **Section 6.3.2** below.

Results

The southwest Peace River region was relatively unknown and unexplored even by the early 20th century. Several exploration accounts from that period were reviewed for information on Aboriginal land use and occupancy. The Province sent land surveyors to map poorly known regions and to assess their economic resources and potential for settlement. Such a survey (Mulligan 1914) was carried out on the north side of the Peace, but the south side, including the Project area, appears to have remained more or less unexplored. The *Annual Report of the Minister of Lands* from 1911 to 1929 mentions only the Mulligan survey. A compendium of land survey reports (British Columbia Dept. of Lands 1919) also contains nothing on the southwest Peace.

In 1914 and 1915, Forest Guard N.F. Murray appears to have made the first exploration of the southwest Peace. He carried out a timber survey of the Murray River (referred to as the East Pine Branch of the South Pine River at the time), the Middle and West Pine Branches of the South Pine River, and their tributaries the Moberly and Misinchinka Rivers, "otherwise known as the Pine Pass Route to the Peace with the country adjacent thereto" (Murray, 1915). Murray found that recurring forest fires rendered the timber value negligible. Deadfalls and rugged terrain made travel extremely difficult:

> This whole district of hundreds of thousands of acres is covered with down timber. Travel, save by the few Indian hunting trails, is almost impossible. . . . The trails of the Pine and Misinchika valleys are probably the worst in British Columbia and should be closed until trails are built. They are horse and man killers. (Murray, 1915)

In contrast to later travellers through the area, Murray noted the presence of some Indian hunting trails and the abundance of moose, caribou and smaller game on the eastern side of the Rocky Mountains, along the Pine River, Gwillim Lake (referred to as Rocky Mountain Lake at the time), Moberly Lake and Fish Lake. He also noted that the First Nations people of the Peace country often subsisted on a predominantly meat diet, although occasionally the diet diversified (Murray, 1915).

In 1914, S. Prescott Fay explored the Canadian Rockies between the Peace River and Yellowhead Pass (Fay 1915; 2009). Fay and his party forded the Murray River near its confluence with Flatbed Creek. They came across a large, flat area covered in grasses that contained three sets of tipi poles as well as a piece of calico cloth perceived to have belonged to a First Nations woman who had presumably left it months ago (Fay 2009: 107-108).

In 1927, American big game hunter and outdoorsman, Prentiss N. Gray, travelled from the Peace River to the Fraser. From Hudson's Hope he went to the east end of Moberly Lake and ascended the East Pine to the forks of the Pine, Sukunka and Murray Rivers, and then travelled onto Lone Prairie. Gray's account suggests a vast, unoccupied region:

> Previously we had been using Indian Trails such as they were, but after this camp at Lone Prairie we lost the last vestige of a trail. We were cutting "across country" from the Middle Pine to beyond, and the country was devilish! (Gray 1994:225)

To locate literature on First Nations land use and occupancy, ethnographic bibliographies (Murdock 1965, Helm 1973) were reviewed for literature on the Beaver and Sekani, whose cultural areas are known to include at least part of the Peace River region. Recent definitive cultural summaries on the Beaver (Ridington, 1981) and the Sekani (Denniston, 1981) were also reviewed. The cultural summaries are based on ethnographic work to date, including definitive ethnographies such as Jenness (1937). While the cultural summaries depicted the general traditional territories of ethno-linguistic groups, there was no information specific to the Project area.

The review of the literature also examined post-1980 ethnographies by Ridington and by Brody on the Beaver, Cree and Saulteau in the Peace River district. The Ridington ethnographies (1988, 1990) describe key aspects of Beaver culture and sustenance, but provide no specific information about land use and occupancy in the southwest Peace. Brody (1981), however, describes continuing traditional sustenance patterns and he maps the extent of resource procurement areas of First Nations in the Peace River. Some of Brody's maps cover the Project area, and they are discussed in detail below. Brody's information on specific land use of First Nations in the Peace River is based on a study carried out by the Union of British Columbia Indian Chiefs (UBCIC) in the late 1970s to assert aboriginal interests at the Northern Pipeline Agency hearings. Appendix I, by Martin Weinstein (1979), describes in detail aboriginal land use and occupancy and impacts from development in the Peace River country. That study was based on interviews and mapping carried out by Brody, who later presented in his results (see Brody, 1981).

Historical records of specific aboriginal land use and occupation in the southwest Peace appear to be virtually non-existent, undoubtedly because of relatively late and sparse Eurocanadian settlement in that area. The Joint Indian Reserve Commission (1876-1880), which provides detailed information on First Nation interests, did not operate in the Peace River region. Even the Royal Commission on Indian Affairs for the Province of British Columbia (the "McKenna-McBride Commission"), which met with nearly every Indian Band in the province, distinguished only the "McLeod Lake Band," the "Fort Nelson

Tribe" and "Nomads" (Royal Commission on Indian Affairs 1916). None of those bands submitted additional land applications pertaining to the Project area.

The Brody (1981) and Weinstein (1979) studies provide some information on aboriginal land use that border the Project area in general. The data, collected in the late 1970s, are based on "map biographies" in which informants described their life time of land use activities and mapped the outer limits of those activities. The original interview notes and map biographies were not available, but Brody (1981) has published a number of summary maps. They indicate the extent of some aboriginal land use activities that border the Project area, but those activities may or may not apply specifically to the Project area. The information from the available map biographies, together with some textual information, can be summarized as follows.

Dunne-za traditional use territories are largely confined to the north side of the Peace River (Brody 1981: Maps 6 through 11, 14, 16; also Weinstein 1979: Figures 4, 6, 8). The McLeod Lake people who traditionally used the eastern slopes of the Rockies (Denniston 1981) were not part of the Brody and Weinstein studies. The Saulteau (East Moberly) and West Moberly First Nations located on Moberly Lake are closer to the Project area than the other aboriginal groups, and the Saulteau and West Moberly traditional use areas border on the west side Project area in the literature (Brody 1981:Maps 12, 13, 16). The Saulteau (East Moberly) First Nations map depicts the extent of the hunting areas of seven hunters both before and after 1961, whereas the areas to the south and west represent pre-1961 land use (Brody 1981:164). Because of pressure from settlement and development, Saulteau hunting by 1979 had become concentrated in the heavily marked area around the reserve at the east end of Moberly Lake (Brody 1981:164).

In conclusion, the historical and ethnographic literature contains little information about aboriginal use of the Project area and surroundings. The limited available information is general, rather than site specific, and no site location information was obtained. The few accounts suggest that Dunne-za groups carried out traditional activities almost entirely north of the Peace River. West Moberly First Nations have confirmed through consultation that members of the community utilize the Project area for hunting (Various, WMFN Community Open House, Sept 2010). No specific information is available for the Sekani (McLeod Lake) people. Additional information on past use of the land will be presented in

the Traditional Use Studies, as described below. Traditional Use Studies initiated by Finavera have collected some land use information from the Saulteau First Nations regarding the LSA.

Present and Anticipated Future Use

Traditional Use Studies

Finavera has initiated four Traditional Use Studies to collect information on First Nation traditional land use of the Tumbler Ridge Project area so that infringements on treaty rights and other First Nations' interests can be avoided or mitigated. In 2010, the Saulteau First Nations, through their company Nesoo Watchie Resource Management, in partnership with Finavera, developed their own traditional use study which was completed in early January, 2011. Its findings are discussed below. The West Moberly First Nations, Halfway River First Nation, and the McLeod Lake Indian Band are partnered with Finavera in developing and managing a First Nation-directed traditional use study, referred to herein as the Traditional and Community Use Study (TCUS). Finavera serves the co-lead role with the First Nations and provides the significant funding for the Project. This study will be concluded in 2011. The results can be shared with government agencies where and if appropriate, subject to the consent of the participating First Nations, at the study's completion. The results of the TCUS will feed into final project design as they become available. The TCUS is being carried out in addition to consultation conducted under this assessment. Finavera has made attempts to contact Doig River First Nation to discuss the Project and potential traditional land uses.

Traditional use studies record the use and knowledge of the landscape within the life experience of First Nation members. Traditional use studies usually focus on current or recent uses, but also may document past use by members when they were young. Most uses reported pertain to traditional sustenance and raw materials, but may also include spiritual and ceremonially significant places. Recording use within the life experience of living members recognizes the cyclical nature of Aboriginal land use. Some areas may not have been used for traditional purposes every year, and periods of use may be interspersed with periods of little or no activity. Traditional use sites that display physical remains of use, such as structures or tools, may also be archaeological sites protected by the *Heritage Conservation Act*. Traditional use sites are considered VSCs/VECs, and are to be reviewed through discussions with First Nations as specific development plans are finalized.

The approach to the Traditional Use Studies outlined herein is to develop membership capacity to carry out all Traditional Use Study requirements for all proponents working within the Treaty 8 territory. Finavera is pleased to have supported the development of the required capacity towards this shared goal. Finavera will continue to work in partnership with the First Nations to complete the multi-season Traditional Use Studies according to the Nations' traditional protocols.

In addition, the intention of the First Nations involved with Finavera is to share with other First Nations and interested parties their approach to Traditional Use Studies: the methodology, the required project roles, and ultimately the lessons learned.

Due to the significant investment on the part of all parties involved, the Traditional Use Studies for the Project remains ongoing under the co-leadership of Finavera and the Nations.

Saulteau First Nations' Culture and Traditions Study (Traditional Use Study)

The overall goal of the SFN's Culture and Traditions Study (CTS) is to identify areas of SFN cultural and traditional use in the Tumbler Ridge Project area through numerous community land use mapping interviews.

The participation of Saulteau First Nations members in the traditional use study was strictly voluntary. Prior to engaging in the study, all participants were informed about the study's goals and procedures, its anticipated benefits and risks, as well as their right to decline to participate in any aspect of the study at anytime, without giving a reason, and without repercussions.

Translation services were provided for participants who preferred to speak their native language during the interview and mapping process. English is a second language for some community members, who are more comfortable and confident when speaking Cree. Also, the Cree language enables its speakers to be more precise in their descriptions of their experiences on the land. Cree allows the participants to express their approaches to stewardship in a way that reflects Saulteau cultural knowledge and meanings.

The knowledge shared by community members and the research for this report is recognized as the intellectual property of those individuals and the Saulteau First Nations. Any use of the Saulteau First

Nations report in whole or in part, apart from the terms agreed to with Finavera in the CTS contractual agreement, requires the written consent of the First Nation.

All materials collected in the Traditional Use Study are confidential and the property of the Saulteau First Nations. All interview team members signed confidentiality agreements, and will treat all material associated with the Project accordingly.

The interview methodology is captured in the *Saulteau First Nations Cultural and Traditional Land Use Interview Guide*, Oct. 2010, drafted by the Nation for the Project and co-led with Finavera. The interview guide outlines the interview procedures ensuring quality and consistency in data collection from the SFN interview teams, in turn providing quality assurance for CTS advisors[2].

Study Areas

The Saulteau First Nations Traditional Use Study collected information from two defined study areas. The Local Study Area consists of the Project Footprint with a 500 m buffer. The Regional Study Area is the Project Footprint surrounded by a 5 km buffer.

Project Phases

The Saulteau Traditional Use Study is carried out in three main phases:

Phase 1 – Planning

Complete an ethnographic literature review, cause and effects analysis, literature gap analysis, project work plan and interview guide to direct the study.

Phase 1, initiated on August 20, 2010, was completed in early October 2010, and delivered to Christine Callihoo of Finavera on October 12, 2010. A copy of the interview guide is attached to the SFN CTS interim report provided to Finavera.

[2] The term 'advisor' applies to the Elder or community member being interviewed for the project.

Phase 2 – Study

Develop the tools and access the training required to implement the interview guide, complete the approximately 50 - 75 CTS interviews and the complete data entry.

Phase 2, begun in early October 2010, is complete. Finavera provided funding to support 60 interviews, and the SFN provided funding to conduct an additional 42 interviews, totalling 102 interviews completed during the project.

Phase 3 – Analysis and Reporting

Develop summary maps, a quantitative report on resource use (for the application to EAO) and a public report.

Phase 3 was initiated in early November 2010 to complete the reporting component of this study. The final Phase 3 summary maps and reports were completed January 14, 2011.

Methods

All Geographic Information System (GIS) digitizing and analyses were completed in ESRI ArcGIS v10 and all database data entry and analyses were completed in Microsoft Access 2007. The mapped areas associated with each site reported in the interviews were digitized, entered into a GIS layer and coded with attributes to join to the database. The 17 interview questions and answers associated with each site were entered into a database with attributes to join to the GIS layers. The resulting GIS layers were clipped using both a 5 km and a 500 m buffer around the Project Footprint. Each site identified within the Project Footprint with the 5 km and 500 m buffers, respectively was included in the interim report submitted to Finavera on October 12, 2010.

The data summaries in the results are based on only 6 of the 17 questions regarding each site. The questions, by number, are listed below:

7) Location Type - What type of location is it? Examples of cabin, trapline, swamp, burial site, and general area were given.

9) General Resource - What item did you harvest or use at this site? Examples of moose, grizzly, berries, trees, and trout were given.

12) Cultural Impact - In your opinion, based on the location and activity you have just described using, will any proposed development have an impact on your cultural activities?

13) Social impact - In your opinion, based on the location and activity you have just described using, will any proposed development have an impact on your social activities?

14) Economic Impact - In your opinion, based on the location and activity you have just described using, will any proposed development have an impact on your economic activities?

15) Subsistence Impact - In your opinion, based on the location and activity you have just described using, will any proposed development have an impact on your subsistence activities?

Responses to questions 7 and 9 were identified as one of the many possible values in a lookup table available to the interview team and confirmed with the advisor to ensure that the value accurately represented their response.

Respondents were asked to answer "Yes" or "No" to questions 12 to 15. If the response to the question was "Yes", respondents were asked to rank the impact as "Low", "Medium", or "High". Only the "High" responses were summarized in the results.

The traditional study also involved a review of the literature that focussed on two subjects: (1) Saulteau use of the Tumbler Ridge Project area and (2) wind energy project development and its potential effects on the environment and indigenous people. While there are accounts of traditional use of First Nations in northeast British Columbia, they contain little information specifically on Saulteau land use. With wind energy being relatively new in British Columbia, there is limited information on potential impacts specific to First Nations in British Columbia. As a result, the study looked at published sources of information on wind energy project impacts outside of British Columbia, and identified potential impacts from the Tumbler Ridge Project that could apply to the SFN.

Results

The data acquired using the methodology described informed the Project in the identification and evaluation of potential project impacts, underlying Finavera's environmental and socioeconomic impact assessment. Potential mitigation and accommodation measures are based on these data.

The interviews identified numerous site types (i.e. hunting area, burial grounds, storage pit, etc.), general activities (i.e. camping, fishing, harvesting, etc.), specific activities (i.e. birthing, ceremony, logging, etc.), general resources (i.e. beaver, caribou, salt lick, etc.), and specific resources (i.e. antlers, feathers, moss, etc.).

The following section summarizes the results of the analysis completed on the CTS interview data.

To date, 71 CTS sites have been identified within the 5 km buffer of the Tumbler Ridge Project area. Of those 71 CTS sites, 42 (59%) are within 500 m of the Tumbler Ridge Project Footprint (**Table 6.3-6** and **Table 6.3-7**). Note that Resource Categories are cross referenced with Location Type Categories, so that each Resource Category corresponds to one Location Type, and vice versa. A fur-bearing animal Resource Category would relate to a trapline Location Type. With respect to the category type Other, any feature, General Resource or Location Type, that did not exist in the interview teams code tables, would be classified as Other. The term 'Other' was also used to describe General Resource Categories and Location Type Categories. A lookup table was included in the final Report which defines these features. Based on these tables, examples of "Other" Resource Categories would be Black Bear, Mountain Goat or Grizzly. Examples of "Other" Location Type Categories would be Road or N/A (where a resource did not necessarily correspond with a location). "Other" does not include spiritual sites.

Table 6.3-6: CTS General Resource Summary for the Local Study Area (500 m buffer)

Resource Category	Sites (No.)
Birds	9
Caribou	2
Deer	2
Elk	5
Fish	5
Fur-bearing Animals	5
Moose	6
Other	2
Other Mammals	3
Plants	3
Total	42

Table 6.3-7: CTS Location Type Summary for the Local Study Area (500 m buffer)

Location Type Category	Sites (No.)
Camp	1
Den	1
Trapline	1
Landforms	20
Other	19
Total	42

The CTS results identifying the location of traditional use locations in relation to the LSA include 1 camping area. Rather than a specific point, this camping area covers a general area used for camping which encompasses the southeastern-most extent of the potential turbine placements. Conversations between Myke Clark and Christine Callihoo of Finavera and Saulteau First Nations on January 11, 2011 confirmed that while locations of cultural, social, economic and subsistence high impact are located within 500 m of the Project Area, no significant impacts ("no 'show stoppers'") to Saulteau First Nations traditional use is anticipated by this Project.

Halfway River First Nation, McLeod Lake Indian Band and West Moberly First Natiions' Traditions and Community Use Study

The Traditions and Community Use Study (TCUS), proposed by HRFN, MLIB and WMFN, will commence with interviews in the spring of 2011, with field work anticipated to be conducted and completed over the spring, summer and fall seasons of 2011, subject to Finavera finalizing terms for the study with First Nations. The final results will be communicated to the HRFN, MLIB and WMFN communities in the

winter of 2011-2012. Consultation with the three Nations has been ongoing since 2007, and the results of the TCUS are considered to be additional to potential impacts and concerns communicated through the consultation process.

Study Areas

The TCUS defined three study areas:

Project Footprint: The Project Footprint consists of the area that will be physically disturbed during construction. The Project Footprint is located within the Local Study Area.

Local Study Area (LSA): The LSA consists of the Project Footprint, with a buffer of variable widths. The LSA consisted of a corridor (100-500 m) for the proposed turbines, turbine connector roads, transmission lines and feeder lines, because in the final design these components may change. All new roads had a study area corridor width of 100 m or greater where further project design is anticipated (such as near water crossings or on sharp corners). The entirety of the LSA was assessed by the documentary review.

Regional Study Area (RSA): Includes the LSA and a 10 km radius around the LSA. Detailed information on known traditional use sites, as well as past traditional use studies, will be collected for this area.

Project Phases

Phase I: Baseline Data Compilation (GIS component – TCUS Team)

Compiling the baseline mapping of the data already collected to date (including data the Nations have already collected to better inform the TCUS process) to establish what is already known and what remains unknown. This step to inform the next two phases of the process:

- Establish the infrastructure for the study;
- Refine research methodology;
- Define and identify the basic storage and retrieval system for the information;
- Develop a hiring and training plan;

- Conduct hiring process; and
- Establish Information Sharing Agreement with all relevant project parties.

Phase II: Ground Truth / Desk Top Analysis – TCUS Team

TCUS Team to review the mapping data from Phase I and use this information to guide the approach taken for the field work and interviews:

- Archival research and analysis;
- Develop a plan for interviews and ground-truthing; and
- Produce preliminary mapping.

Phase III: Field Work

The field work methodology to be conducted according to peer reviewed and accepted approach. The methodology will be detailed to ensure transparency and replication as required.

The Field Team is to consider a significant number of variables when in the field including: access points, adjoining creeks, human and animal trails, animal signs, etc. This effort is to be guided by the initial work of the TCUS Team.

The Field Team will consist of an archaeologist (jointly selected) who will also serve as the TCUS Coordinator, and a wildlife biologist familiar with the south Peace area.

Phase IV: Community Review and Guidance

Community review and consideration by each of the participating Nations to ensure that all areas of significance and potential impacts to TCUS are addressed in the pre-construction stage of the Project. Phase IV is to be guided by the TCUS Team in accordance with the Nations' established protocol.

Phase V: Final Report

Completion of final report and final mapping. All resulting data is owned by the First Nations, with specific information provided to Finavera.

Throughout the TCUS process, Finavera in partnership with the three First Nations, will endeavour to inform the First Nation communities on a scheduled basis (approximately every 2-3 weeks) about the TCUS process via a newsletter delivered to each household in the community.

Methods

The HRFN, MLIB and WMFN developed the methodology and project management of the Traditional Use Study (TCUS). On different occasions between 2007 and 2010, these First Nations approached Finavera to express their interest in developing a study methodology that reflected the traditional ways of the Nations in data gathering and documentation. Motivated by the Nations' desire to approach the TCUS in a culturally appropriate manner, Finavera commenced a dialogue specific to the TCUS with the three First Nations, and together developed a process, methodology and shared budget that would work for all three Nations. Based on guidance from a full one-day meeting with the three First Nations in the early spring of 2010, Finavera drafted the framework for the TCUS. In June, 2010 Finavera sent the draft methodology, work plan, and budget to the three First Nations for their review and approval. Finavera is expecting final approval from the three Nations in February, 2011, so that the TCUS can begin this spring of 2011. The TCUS is being carried out in addition to consultation conducted under this assessment.

The TCUS will be carried out by two teams that oversee specific components of the Project. The two teams will consist of:

1. TCUS TEAM (senior level) to conduct the higher level screening of the Project areas to plot out the field season component and provide senior advisory support; and a
2. FIELD TEAM to complete the field work.

Each First Nation will appoint one person to serve on the TCUS Team and on the Field Team including the three Nations' land managers.

The data collected via the TCUS process will be incorporated into a graphic valuation system (GVS - a term provided by the Nations to represent a spatially based scientific analysis and evaluation) to better serve the First Nation communities. Other forms of data portrayal such as summaries will be completed by the field team and reviewed by the TCUS team as required.

The TCUS data collected will remain the property of the Nations involved. However, Finavera can expect to secure all relevant information as required in the various Provincial and project design processes of the Project (i.e., a summary of the research and results, as well as a memo to the effect that the TCUS has been conducted to the satisfaction of the participating Nations).

Additional Anticipated Future Use

In addition to future uses anticipated by the SFN CTS study and anticipated hunting uses identified by WMFN during consultation, potential future uses can be surmised by comparing historical use of the region, described in the Documentary Review above, with the results of the biophysical studies conducted as a part of this assessment. **Table 6.3-8**, presented in **Section 6.3.1.5** below, lists the Treaty 8 rights based on the presence of mammal, bird and fish resources in the LSA. It can be inferred that Treaty 8 First Nations with access to the Project area may continue to utilize these resources in the future, so long as they are present.

6.3.1.5 Treaty Rights and First Nations' Interests in the Project Area

As noted earlier, the Tumbler Ridge Project is entirely within the Treaty 8 lands. Treaty 8 defines hunting, trapping and fishing rights to the First Nation signatories. Other traditional practices, such as collecting wild berries and medicinal plants, could be regarded as First Nations' interests. First Nations' interests are based on the cultural contexts of specific First Nations and their tribal territories. In short, First Nations interests are specific to First Nations and their treaty areas.

With respect to the Tumbler Ridge Project area, Finavera has made efforts to identify all Treaty 8 rights and other First Nations' interests that may be impacted by the Project. Finavera has consulted with First Nations and with the Treaty 8 Tribal Association regarding identification of those rights and any impact of the Project on those rights since 2007. The Project area is within the hunting and trapping extent of the SFN and WMFN reported in the late 1970s (Brody 1981:164-167, 172-173), and conversations between Finavera and both SFN and WMFN through the consultation process have confirmed that the Project area is still used for hunting by band members. Results from SFN's CTS indicate that there is current use of the RSA for hunting and trapping.

Finavera also is negotiating the TCUS with West Moberly First Nations, Halfway River First Nation and McLeod Lake Indian Band, as previously outlined. As the results of the TCUS will not be incorporated in

this application, feedback received through consultation to date and a review of the literature can identify treaty rights and other First Nations' interests that may apply to the Project area, if those resources are present there and if they should become established in the Project area in the future. The identification of Treaty 8 rights and other First Nations' interests provides an inventory that may be confirmed with each First Nation with respect to the Project area.

Treaty 8 Rights

Under Treaty 8, the First Nation adhesions have the right "to pursue their *usual vocation of hunting, trapping and fishing* [emphasis added] throughout the tract surrendered . . . subject to such regulations as may from time to time be made by the Government of the country."

The Treaty 8 rights based on the "usual vocations" and their associated resources in the LSA are summarized in **Table 6.3-8**. The main sources for "usual vocations" are Weinstein (1979:27-39, 74, 112-122, 130-139, 143-150) and Brody (1981:190-213), who, in the late 1970s, studied the traditional and contemporary economies of the B.C. Treaty 8 First Nations, including Saulteau, West Moberly, Halfway River, and Doig River. Golder (2010: Appendix 21A) identifies some resources reported by McLeod Lake elders. The list of "usual vocations" also is based on very general cultural summaries by Ridington (1981:351-352), and Denniston (1981:436). Results from the SFN CTS are also a source for identifying hunting, trapping and fishing resources. Some resources in **Table 6.3-8**, such as beaver, are hunted and trapped. The trapping rights list in **Table 6.3-8** emphasizes the commercial fur bearers, and does not preclude trapping some animals listed under the right to hunt. The presence and availability of a game or fur resource in the RSA is based on the results of the biophysical studies undertaken as a part of this environmental assessment, which is discussed in **Section 5**.

Table 6.3-8: Treaty 8 Rights Potentially Applicable to the Tumbler Ridge Local Study Area

Right	Resource	Presence in Project Area
To Hunt	Moose	Present
	Deer	Present
	Caribou	Scarce
	Elk (wapiti)	Scarce
	Mountain sheep	Absent—no habitat near Project area
	Mountain goat	Absent—no habitat near Project area
	Black bear	Present
	Grizzly bear	Present
	Beaver	Present
	Muskrat	Present
	Otter	Scarce—associated with larger streams outside Project area
	Snowshoe hare (rabbit)	Present
	Marmot (whistler)	Absent
	Ground hog	Absent—associated with agricultural areas
	Porcupine	Present
	Grouse	Present
	Ducks	Scarce—few riparian areas and wetlands in Project area
	Geese	Scarce—few riparian areas and wetlands in Project area
	Ptarmigan	Absent
	Swans	Absent
	Cranes	Scarce—few riparian areas and wetlands in Project area
	Loons	Absent
To Trap	Lynx	Scarce
	Wolverine	Scarce
	Wolf	Present
	Coyote	Present—lower elevations, forest edge and agricultural areas
	Fox	Scarce
	Fisher	Present
	Marten	Present
	Mink	Scarce
	Ermine	Present
	Red squirrel	Present
To Fish	Whitefish	Potentially Present—Mast Creek, Murray River
	Trout	Present—Mast Creek, Murray River, Wolverine River
	Grayling	Potentially Present—Wolverine River, Murray River
	Suckers	Potentially Present—Murray River
	Pike	Potentially Present—Murray River
	Ling cod (burbot)	Potentially Present—Murray River
	Dolly varden	Potentially Present—Wolverine River, Murray River

The game resources present in the Project area indicate that treaty hunting and trapping rights will apply to 25 mammals and birds there; fishing rights will apply to seven kinds of fishes whose habitat is present in the RSA. The results of the SFN CTS support this assertion. Finavera expects that these rights,

identified through consultation with First Nations and the documentary review conducted for this assessment, are those rights that may be impacted by the Project. Should future concerns for treaty rights arise through further consultation with the Section 11 Order First Nations, Finavera will solicit input from First Nations to develop mutually agreed upon protocols to mitigate potential impacts and to accommodate the exercise of all treaty rights.

Other First Nations' Interests in the Project Area

Treaty 8 First Nations also engage in other traditional land use activities that are not defined as rights under Treaty 8. Such other First Nations' interests may include the practices of berry picking and gathering, collecting plant medicines, and harvesting other plant materials, among other activities. Traditional cultural activities such as observances at spiritually important sites also may be other First Nations' interests.

Since these other interests based on traditional practices are First Nation specific and site specific, they can best be identified through consultation with First Nations regarding specific use of the Tumbler Ridge Project area. In addition to meetings with and open houses in the HRFN, MLIB, SFN and WMFN communities, Finavera has contracted a Traditional Use Study with the Saulteau First Nations, and currently Finavera is negotiating a Traditional Use Study (the CTUS) with the West Moberly First Nations, the Halfway River First Nation and the McLeod Lake Indian Band. Information gained from these studies will be considered as additional to information presented in this application as the results from the CTUS are not included in this application. Finavera continues to attempt to engage with Doig River First Nation to discuss this and other issues relating to their Nation and the Tumbler Ridge Wind Energy Project.

Results from the Saulteau First Nations CTS indicate a number of other interests that may pertain to the Project area. Within 500 m of the Tumbler Ridge Project Footprint, including the footprint, the Saulteau First Nations have identified 3 plant category resources and 2 "other" category location type sites. These data may represent other interests exercised in the Project area. Finavera has confirmed with the Saulteau First Nations that, while there are resources available to conduct hunting, trapping and fishing *in* the Project area, the results of their CTS indicate that the resources are generally available at a number of locations in the vicinity, and no significant impacts ("no 'show stoppers'") to SFN hunting,

trapping or fishing is anticipated by this Project. Lesser potential impacts and concerns regarding these impacts are discussed further in **Section 6.3.2**.

6.3.2 Potential Impacts and Proposed Mitigation

6.3.2.6 Construction

Changes in Value of VSCs and Treaty Rights

As the proposed development is located within Treaty 8 Lands, the construction of the Tumbler Ridge Wind Energy Project has the potential to affect treaty rights and other First Nations' interests based on the documentary review, consultation and the results of the SFN CTS. The development also has the potential to affect VSC's identified in this assessment, namely Traditional/Cultural Use Sites and Traditional/Cultural Use Activities. Through consultation initiated by Finavera and through a review of the SFN CTS results, the First Nations have expressed concerns about potential impacts from the construction phase as outlined in **Table 6.3-9** below. Impacts to treaty rights are addressed individually as impacts to hunting, trapping and fishing resources as identified through consultation, the SFN CTS and the documentary review. Where a potential effect was identified by a particular First Nation, reference to that nation is noted in brackets after the effect. No sites with high significance have been identified in this assessment and no significant impact to treaty rights or other First Nations' interests have been identified. Accommodation measures, including design considerations, mitigation measures and specific commitments which address potential impacts on any matters identified, are outlined in **Table 6.3-9** below.

Table 6.3-9: Summary of Potential Construction Impacts and Accommodation Measures

Potential Effects on Aboriginal Activities	Accommodation Measures
Disturbance of traditional/cultural use sites, as identified by First Nations through consultation, due to construction activities.	No known important permanent sites have been identified by First Nations in the Project footprint for this assessment. If new important permanent sites are identified by First Nations through continued consultation, No Work Zone flagging will be used to demarcate the area for avoidance, where avoidance is possible. Where not possible, affected First Nations will be consulted to solicit mitigation measures to minimize impacts to the site. Finavera will discuss potential monitoring programs with First Nations.
Hunting restrictions as a result of the project being built on or near a hunting area frequented by the Nations (SFN and WMFN).	The Project will not restrict hunting on Crown Land. During construction, access to usual activities may be limited for site safety, as per **Section 6.4.2.**

Potential Effects on Aboriginal Activities	Accommodation Measures
Invasive vegetation introduced through construction activities causing a decrease in habitat value resulting in a decrease in hunting, trapping and fishing values.	Mitigation measures for plants and ecosystems as outlined in **Section 5.4** will be followed. Site regeneration methods to be developed in conjunction with First Nations to optimize regrowth of culturally important vegetation.
Direct wildlife (including fish) mortality due to construction activities.	Mitigation measures outlined in **Section 5** will be followed.
Exposure to contaminants (i.e. accidental spills) may harm vegetation and/or wildlife (including aquatic biota), leading to a decrease in hunting, trapping and fishing values.	Mitigation measures for plants and ecosystems outlined in **Section 5** will be implemented.
Disturbance to wildlife habitat for those species identified under **Section 6.3.1.5** due to construction activities (including noise disturbances) resulting in a decreased ability to conduct hunting, trapping, fishing or other Traditional/Cultural Activities.	Mitigation measures for plants, ecosystems and wildlife as outlined in **Sections 5.4, 5.5, 5.6, 5.7** and **5.8** will be followed.
Interference with wildlife behavioural activities from construction activities leading to a decrease in hunting and trapping resources.	Mitigation measures for Ecosystems as outlined in **Section 5** will be implemented.
Direct injury or mortality of aquatic biota due to construction activities, leading to a decrease in fishing resources.	Mitigation measures relating to Water Resources, Water Quality and Fish and Fish Habitat outlined in Sections 5.2 and 5.3 will be implemented.
Aquatic biota habitat disturbance (including erosion and run-off) and/or fragmentation due to construction activities, leading to decreased fishing resources.	Mitigation measures relating to Water Resources, Water Quality and Fish and Fish Habitat outlined in **Sections 5.2** and **5.3** will be implemented.
New access leading to increased use of the Project area by non-Native hunters and increased habitat fragmentation (HRFN, MLIB, SFN and WMFN).	FVR must use current access in the areas for the project wherever possible. Where upgrades or new roads are required, FVR will minimize footprint dimensions as per **Section 2.4.**
Impacts to caribou populations (WMFN).	FVR conducted extensive biophysical studies including caribou habitat analysis. The assessment indicates that FVR project will have no significant impacts on the current caribou populations as a result of the projects, as per **Section 5.5**.
Potential use of biocides leading to degradation of hunting, fishing and trapping habitat (SFN and WMFN)	FVR will avoid the application of biocides on the project sites. No mitigation measures have been proposed in the EA Application that include the use of biocides.
Contracting access – ensuring that Treaty 8 First Nation contractors also benefit from the construction of the wind project (HRFN, MLIB, SFN and WMFN)	FVR has been working with the First Nations to develop contracting policy that reflects the priorities of the Nation while also ensuring that FVR maintains a competitive bidding process.

Construction activities related to the construction of the road, WTG foundations, transmission line and underground cables have the potential to affect Traditional/Cultural Use Sites through disturbance of the natural vegetation and soil. Those areas which remain in the operational footprint would be

impacted for the duration of the Project, until reclamation. Where appropriate during construction, impacts on sensitive wildlife areas and significant land use resources will be minimized or avoided as per the mitigation measurements outlined in **Table 6.3-9** above. The effects of impacts to ecosystems and wildlife noted above are assessed in **Section 5** as low prior to mitigation, and insignificant after mitigation measures have been undertaken. Rehabilitation of areas disturbed by construction can return the traditional land use value for ecological sites.

Dialogue between Section 11 First Nations and Finavera will continue through the development of the Project. Should any sites of high significance be identified during this process, Finavera will avoid those sites where possible and/or, through consultation with First Nations, minimize and mitigate impacts on treaty rights,, Traditional/Cultural Use Locations and/or Traditional/Cultural Use Activities. Finavera will continue to solicit input from First Nations for the ongoing development of mitigation measures as Traditional/Cultural Use Sites and Traditional/Cultural Activities are identified through the traditional use studies proposed in addition to this assessment.

Social and Economic Considerations

Finavera has been working with the First Nations to develop a contracting policy that reflects the priorities of the Nation while also ensuring that FVR maintains a competitive bidding process. Companies operated by First Nations and Aboriginal communities will be considered for construction contracts, based on their expertise, competitiveness, and availability. In turn, these companies could employ members. Capacity of local businesses, labour force size and skill level, education, experience and proximity to the Project area will play a role in determining contracts awarded. Specific opportunities given the services available include clearing, road construction, access maintenance and safety supervision.

Depending on the level of employment created by the project construction, there may be slight increases in employment income in some communities. Finavera has been engaged with the various First Nations and is aware of their interest in the potential economic opportunities regarding the Project. Finavera intends to continue working with the various Aboriginal parties to establish various forms of business opportunities as they relate to the Tumbler Ridge Project.

6.3.2.7 Operation

Changes in Value of VSCs and Treaty Rights

Given the Tumbler Ridge Wind Energy Project's location within Treaty 8 Lands, the operation phase of the Project has the potential to affect treaty rights and other First Nations' interests identified through the documentary review, consultation between Finavera and the Section 11 Order First Nations and the results of the SFN CTS. The development also has the potential to affect VSC's identified in this assessment, namely Traditional/Cultural Use Sites and Traditional/Cultural Use Activities. The Section 11 Order First Nations have expressed concerns about potential impacts from the operations phase through consultation initiated by Finavera and through a review of the SFN CTS results. Those potential impacts and their associated accommodation measures, including design considerations, mitigation measures and specific commitments which address potential impacts on any matters identified are outlined in **Table 6.3-10** below.

Table 6.3-10: Summary of Potential Operations Impacts and Accommodation

Potential Effects on Aboriginal Activities	Accommodation Measures
Operation activities (i.e. electrocution, collisions, predation, mowing) may lead to direct injury or mortality of wildlife and/or vegetation, resulting in a decrease to hunting and trapping resource values.	Mitigation options to be developed in conjunction with First Nations. Mitigation measures outlined in Sections 5.11, 5.1 and 5.13 relating to birds and bats will be implemented. Mitigation measures outlined in Sections 5.5, 5.6, 5.7, 5.8 relating to wildlife and vegetation will be implemented.
Operation activities may lead to the disturbance of adjacent wildlife habitat and wildlife behaviour, resulting in a decrease to the value of hunting and trapping resources in the RSA.	Mitigation options to be developed in conjunction with First Nations. Mitigation measures for Ecosystems outlined in Section 5.4 will be implemented.
Invasive vegetation introduced through operation activities causing a decrease in habitat value resulting in a decrease in hunting, trapping and fishing values.	Finavera must ensure that all re-vegetation work in the Project footprint, and on any decommissioned road area that was developed to support the Project, involve only native, non-invasive plants being used, as per **Section 5.4.**
Use of biocides to be avoided (SFN and WMFN).	FVR will avoid the application of biocides on the project sites. No mitigation measures have been proposed in the EA Application that include the use of biocides.
Hunting restrictions as a result of the project being built on or near a hunting area frequented by the Nations (SFN and WMFN).	The Project will not restrict hunting on Crown Land. Access will not be limited during operation, as per **Section 6.4.2.**
Visual impacts of the turbines (SFN and WMFN).	FVR conducted a visual impact assessment which indicated that the Nations who voiced a visual impact concern (SFN and WMFN) will not be able to view the

Potential Effects on Aboriginal Activities	Accommodation Measures
	turbines from the settled areas, as per **Section 6.7**.
Impacts to caribou populations (WMFN).	FVR conducted extensive biophysical studies including caribou habitat analysis. The assessment indicates that FVR project will have no significant impacts on the current caribou populations as a result of the projects, as per **Section 5.5**.
New access leading to increased use of the Project area by non-Native hunters and increased habitat fragmentation leading to a decrease in hunting and trapping values (HRFN, MLIB, SFN and WMFN).	FVR will use current access in the areas for the project wherever possible. Where upgrades or new roads are required, FVR will minimize footprint dimensions as per **Section 2.4.**
Contracting access – ensuring that Treaty 8 First Nation contractors also benefit from the post-construction of the wind project (HRFN, MLIB, SFN and WMFN).	Finavera has commenced developing agreements in cooperation with the various First Nation contractors to assess the capacity of the companies for the specific types of services desired by wind energy developers, including maintaining a list of First Nation contractors to be contacted for each request for proposal throughout the operation stage of the Project.

In addition to footprint impacts on ecosystems / habitat and other impacts on wildlife during operations (discussed in **Section 5.2 through to Section 5.13**), increased access from the proposed access road extensions may result in an increase in the number of non-First Nations people able to hunt resulting in a decrease in the value of the hunting area. Conversely, increased access from proposed road extensions may lead to more hunting opportunities for First Nations hunters with easier access. As new roads are expected to be limited in length, connecting to an extensive existing road network, it is not anticipated that hunting access will increase measurably during the life of the Project. Access will not be restricted, and will remain the same as current levels for hunters, trappers and plant gatherers. Fishing resources within the RSA are not impacted by the Project footprint, and impacts to access of fishing locations are not anticipated. The assessment of Project impacts to water resources and fish and fish habitats are detailed in **Section 5.2** and **Section 5.3**.

No significant impacts to treaty rights or other First Nations' interests are anticipated for the operations phase. No additional loss of Traditional/Cultural Use Sites or Traditional/Cultural Activities is expected during the operations phase.

Socio-economic Considerations

Depending on the local contracting process to be undertaken by Finavera, companies operated by First Nations and Aboriginal communities could be awarded contracts for reclamation, maintenance activities or other services. Finavera has already commenced developing agreements in cooperation with the various First Nation and Aboriginal contractors to assess the capacity of the companies for the specific types of services desired by wind energy developers, including maintaining a list of Aboriginal contractors to be contacted for each request for proposal (RFP) throughout the construction and operation stages of the Project.

No significant impacts to communities and services as a result of the Project operation are expected.

6.3.2.8 Refurbishment and/or Decommissioning

If the refurbished Project maintains its layout within the LSA, no new Traditional/Cultural Use Sites or Activities are expected. In the event that the layout is altered beyond the LSA, First Nations input will be sought to avoid or minimize impacts to treaty rights and to traditional use sites and activities. Refurbishment of the Project could potentially provide additional opportunities to Treaty 8 First Nations communities for business, resulting in a positive economic effect. No negative effects are anticipated during refurbishment provided the Project remains within the study areas defined in this assessment.

Decommissioning the Project also has the potential to provide additional business opportunities to First Nations communities. Reclamation of the project area will have a positive effect on resources for First Nation Traditional/Cultural Activities and treaty rights. It is recommended that First Nations input be sought when plans for reclamation take place to provide the opportunity for input regarding vegetation re-seeding for traditionally harvested plants. No negative effects are expected during decommissioning.

6.3.3 Residual Impacts and Proposed Monitoring

Residual impacts are listed below, based on the implementation of the accommodation measures, including design considerations, mitigation measures and specific commitments which address potential impacts on any matters identified, outlined above. Residual impacts have been assessed according to the criteria outlined in **Section 4.1.1**. Finavera has communicated with the Frist Nations about the specific impacts and how they are addressed using both written and verbal (on the phone and in person)

communication on an ongoing basis until each of the specific impacts were able to be addressed to the satisfaction of both Finavera and the First Nations. For example, concerns regarding potential visual impacts were voiced by two of the Nations (SFN and WMFN) with the request that if there are WTG to be seen from Moberly Lake, they would like FVR to consider removing these so that they could not see them. In light of the potential visual impacts, Finavera conducted a visual impact study and was able to clearly show to the Nations that the WTGs would not be visible from Mobely Lake as there is a ridge that blocks Wildmare from the Moberly Lake viewscape. Upon Finavera communicating this to the Nations and showing them the data, the Nations expressed satisfaction and had no further visual impact concerns.

Finavera will continue to solicit input from First Nations regarding the development of mitigation measures as results from traditional use studies conducted in addition to this assessment become available. Residual impacts anticipated are:

- No adverse impact on socio-economic considerations expected. There is anticipated to be moderate (medium) employment opportunities for local businesses and contractors as a result of the Project construction and long term maintenance;
- Low loss of Traditional/Cultural Use Sites documented to date, including camps, hunting and trapping resources, medicinal plants and food plants in the Project footprint. Site remediation at the end of the operations phase will allow hunting, trapping, and fishing to be restored to near or at its baseline values (as determined in **Section 5**). A low loss of Traditional/Cultural Use Sites results in a corresponding low loss of the ability to conduct Traditional/Cultural Activities. Based on the results of the documentary review, the SFN CTS and consultation conducted by Finavera, a negligible decrease in Traditional Use Activities is anticipated;
- Low net decrease in hunting, trapping and fishing values within the LSA. Hunting, trapping and fishing are treaty rights. Site remediation at the end of the operations phase will allow hunting, trapping and fishing habitat to be restored to at or near its original values. The results of the SFN CTS and conversations between Finavera and the Nations through the consultation process have confirmed that a low decrease in value to hunting, trapping and fishing values is anticipated; and
- Negligible loss of plant gathering resources in the Project area. The harvesting of traditional plants is considered a First Nations' interest in this assessment. If mitigation measures outlined in **Section 5.4** and **Section 6.3.2** are implemented, including the use of local native plant species for revegetation and the solicitation of input from First Nations communities regarding the

revegetation of the Project footprint, only a low decrease in plant gathering resources in anticipated.

The overall effects on First Nations activities and accommodation measures are anticipated to be of minimal concern and considered insignificant (**Table 6.3-11**). Criteria used to determine these significance ratings can be found in **Table 4.1-7**. Magnitude ratings are defined as follows:

- Negligible – no measureable change over the baseline condition;
- Low – impact expected above baseline, but with no measureable effect on First Nations culture. Traditional/Cultural Activities and treaty rights may still be practiced unhindered in the First Nations' own territory;
- Moderate – impact expected to be considerable above baseline (within or above accepted standards), and some measureable effect on First Nations culture. Traditional/Cultural Activities and treaty rights may be effected in the First Nations' own territory; and
- High – impact expected to exceed accepted standards and to cause a measureable change well beyond baseline, with a notable measureable effect on First Nations culture. Traditional/Cultural Activities and treaty rights are hindered in the First Nations' own territory. The ability to practice some Traditional/Cultural Activities and treaty rights may be significantly impacted.

Table 6.3-11: Residual Effects and Significance Determination for First Nations Activities and Accommodation Measures

Potential Impact	Extent	Magnitude	Duration	Reversibility	Probability	Significance
Socio-economic considerations – opportunities for local businesses and employment	RSA	Medium	Long	Yes	High	Medium
Potential loss of Traditional/Cultural Use Sites where Traditional/Cultural Activities take place	Project footprint	Low	Long	Change	Low	Low
Potential decrease in value of hunting, trapping and fishing.	LSA	Low	Medium	Yes	High	Low
Potential decrease in value of plant gathering resources	Project footprint	Low	Long	Yes	High	Low

Monitoring

Finavera will implement a monitoring plan prior to construction which allows for First Nations feedback at key milestones during project construction, operation and decommissioning or refurbishment.

Finavera must retain an Environmental Monitor to work on-site during all phases of Project construction. The Environmental Monitor will have experience and expertise suitable to review the implementation of Environmental Protection Plans, recommend and record mitigation carried out, and stop work in the event of environmental non-compliance. Specific Environmental Projection plans will be prepared for:

- Fish and Fish Habitat;
- Erosion and Sediment Control;
- Petroleum and Hazardous and Solid Waste Management;
- Wildlife Protection;
- Vegetation Protection;
- Traffic Management;
- Public and Recreational Access Management;
- Occupational Health and Safety; and
- Accidents and Malfunctions and Emergency Response.

The following is an outline of the key monitoring programs that are proposed by Finavera. They are also included in the individual impact assessment sections and summarised in Section 10 – Commitments for Mitigation, Compensation, Monitoring, and Follow-Up:

Migrating birds (in flight) and Migrating raptors (Sections 5.11 and 5.12 respectively)

- Proposed monitoring would be during the operation phase and include carcass surveys. Additional radar surveys may be recommended, in consultation with the Working Group, based on survey results to assist with adaptive management;

Breeding Birds (Section 5.13)

- Proposed monitoring would be during the operations phase and include carcass surveys. Additional radar surveys may be recommended, in consultation with the Working Group, based on survey results to assist with adaptive management;

Bats (Section 5.10)

- A monitoring plan must be developed to identify gaps in the current understanding of the intensity and distribution of bat use at the site, to take reasonable measures to address those information gaps, and to produce a measured estimate of the impact of the Project on bats once the Project is in operation;
- A post-construction monitoring protocol must be developed.
- Proposed monitoring would occur during the operations phase and include carcass surveys. Additional surveys may be recommended based on survey results to assist with adaptive management;

A monitoring program in adherence to Environment Canada guidelines must be designed and implemented prior to the end of May of the first calendar year of operation. The program will be designed to address variations in the pre-Application bat monitoring between acoustic detectors. The results of the monitoring program along with data from other wind farms in the Peace region will be used to adaptively manage the operation mitigations outlined.