

## 6. FIRST NATIONS

This section of the Application discusses the potential social and economic effects of the construction and operation of the Mackenzie Green Energy Centre (MGECC) that are specific to the Treaty 8 First Nations who have expressed an interest in the project, namely the McLeod Lake Indian Band, and the West Moberly, Sauleau and Fort Nelson First Nations (Figure 6.1-1). As per the ATOR, traditional land use and knowledge, Treaty rights, employment and income, business opportunities and transportation and traffic as it relates to potential interactions between project-related vehicles and wildlife are discussed in this section. The effects on First Nations individuals as part of the broader community are also addressed in the general socio-economic impact assessment (e.g., all area residents are included in discussions on health care) in Section 7 of this Application.

### 6.1 FIRST NATIONS SETTING

The study area for the assessment of First Nations specific impacts consists of the Treaty 8 First Nations communities who have expressed an interest in the project. Although each of the Treaty 8 First Nations has its own reserves and communities, all Treaty members have equal rights to use the lands within the bounds of Treaty 8 and, as such, all have an equal interest in the project area. McLeod Lake, located, approximately 50 kilometres south of Mackenzie, is the closest Treaty 8 community to the project site. As shown in Figure 6.1-1, the Fort Nelson First Nation is located in the northeast corner of the province approximately 690 kilometres northeast of Mackenzie and Sauleau First Nations and West Moberly First Nations are located approximately 200 kilometres east of Mackenzie. The First Nations communities fall within the bounds of three regional districts - the Regional District of Fraser-Fort George (RDFFG), the Peace River Regional District (PRRD) and the Northern Rockies Regional District (NRRD).

The First Nations with an interest in the project use the lands within the bounds of Treaty 8 for a variety of uses including cultural activities, traditional activities, employment, business, and recreation. Through the development of the ATOR, in meetings, and in general discussions, the First Nations have indicated that environmental protection and enhancement, comprehensive land-use and resource planning, protection of cultural and traditional use, protection of archaeological resources, and opportunities for their communities and residents to benefit economically from development on their lands is important to them.

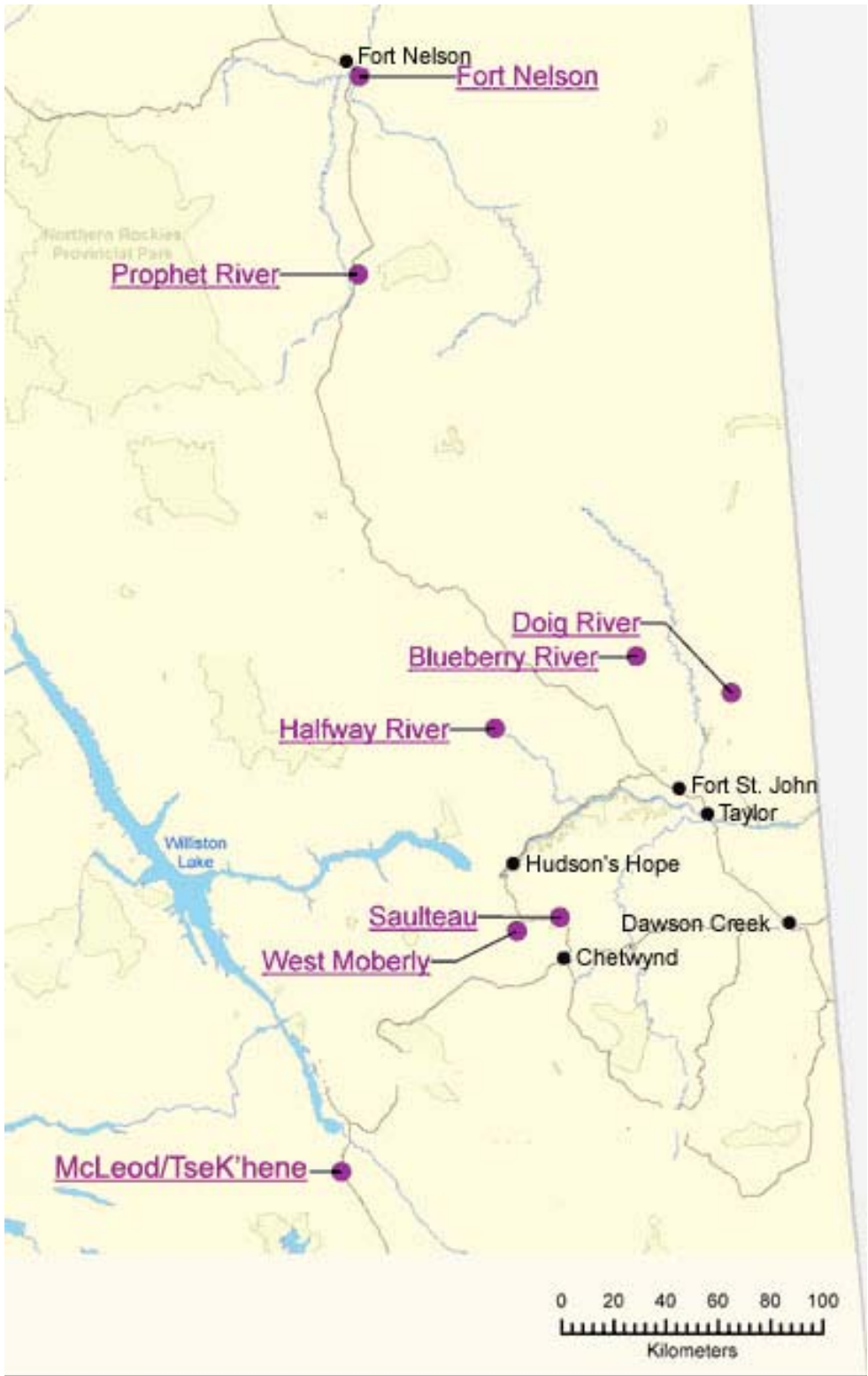


Figure 6.1-1 Treaty 8 First Nations Communities

## 6.2 SOCIO-ECONOMIC BASELINE

A socio-economic baseline was prepared to provide an overview of the First Nations with an interest in the study area. More detailed information is provided on the areas identified in the ATOR as being of specific interest to the First Nations. The information used in preparing the baseline was gathered from:

- discussions with the Fort Nelson, Sauleau and West Moberly First Nations, the McLeod Lake Indian Band, as well as with the T8TA;
- published reports and information; and
- information and data provided directly by the First Nations.

Mackenzie Green Energy LP (MGELP) provided information on proponent policies and project design, configuration, construction and operation of the MGEC.

### 6.2.1 Treaty 8 First Nations and the Treaty 8 Tribal Association

Treaty 8 was signed in 1899 and encompasses a land area of approximately 840,000 square kilometres in total and approximately 270,000 square kilometres in British Columbia or about one-third of the province (Figure 6.2-1). The Treaty Lands are home to thirty-nine First Nations communities including eight from British Columbia, twenty-three from Alberta, three from Saskatchewan and six from the Northwest Territories.



Figure 6.2-1 Treaty 8 Lands

All signatories to Treaty 8 possess constitutional rights to carry out cultural activities throughout the lands within the Treaty boundary.

Of the eight BC signatories, six are represented by the Treaty 8 Tribal Association (T8TA). These are the Saulneau First Nations, West Moberly First Nations, Fort Nelson First Nation, Halfway River First Nation, Prophet River First Nation, and Doig River First Nation. The T8TA provides a variety of services including coordination, facilitation and technical support on various issues as mandated by the Council of Treaty 8 Tribal Association Chiefs. The two other BC Treaty 8 signatories are the McLeod Lake Indian Band and the Blueberry River First Nation.

The ethno-linguistic grouping within the BC Treaty 8 First Nations includes Sicanni (Sikanni), Slavey, Beaver (Dane-Zaa), Cree, and Sauleau. Each Nation is governed independently by an elected Chief and Council. The T8TA estimates the aboriginal population of British Columbia Treaty 8 First Nations territory at about 2,500 to 3,000.

As noted earlier, four of the Treaty 8 First Nations have expressed an interest in the project: West Moberly First Nations, Sauleau First Nations, McLeod Lake Indian Band and Fort Nelson First Nation. In undertaking the project studies Mackenzie Green Energy worked with the T8TA as well as the individual First Nations.

More detailed information on each of the individual First Nations is provided in the subsections that follow.

### **6.2.2 Fort Nelson First Nation**

The Fort Nelson First Nation community is located approximately six kilometres south of the community of Fort Nelson and about 690 kilometres northeast of Mackenzie. The community is located on Fort Nelson No. 2, the First Nation's largest reserve which covers an area of approximately 9,721 hectares. The community is located in the NRRD which is described in Section 7.

The Fort Nelson First Nation is governed by a Chief and Council who serve two year terms. The current Chief and Council were elected in August 2006.

The Fort Nelson First Nation has the second largest population of the four Bands who have expressed an interest in the MGEC. At the time of the 2001 Census, the Band had an on-reserve population of approximately 390 which was an increase of 14.4% over the 1996 population of 341. As shown in Table 6.2-1, the population has increased to approximately 405 and, according to the Fort Nelson First Nation, is expected to continue to increase.

**Table 6.2-1 Fort Nelson First Nation Registered Population as of December 2006**

Residency	Number of People
Males on own Reserve	223
Females on own Reserve	182
Males on other Reserves	9
Females on other Reserves	9
Males on other Band Crown Land	1
Males off Reserve	152
Females off Reserve	198
Total Registered Population	774

Source: Indian and Northern Affairs Canada, January 2007

According to the 2001 Census for Fort Nelson No. 2, 33% of the on-reserve population was under the age of 15, 83% was under the age of 45 and the median age was approximately 27 compared to 18% under the age of 15, 61% under the age of 45 and a median age of 38 for the province as a whole. Similar statistics are not available for the off-reserve population.

Facilities on the reserve include a Band Administration office, band hall, Chalo School, daycare/headstart building, lands building, adult learning centre, health centre, and recreation centre.

The Fort Nelson First Nation is very interested in economic development that can occur in concert with protecting the environmental values that are important to the community. For example, community members have been involved in monitoring activities on projects and this is one area the First Nation is working to expand. The Fort Nelson First Nation is also very interested in business opportunities, such as biomass electricity generation, which also reflect their environmental focus.

Currently, the key economic activities for the First Nation are Eh-Cho Dene construction, Liard Hotsprings Lodge and a 50% ownership of a drilling rig.

### **6.2.3 West Moberly First Nations (WMFNs)**

West Moberly First Nations is a signatory to Treaty 8 and a member of the Treaty 8 Tribal Association. The existing 20-square kilometre reserve is located at the west end of Moberly Lake, approximately 90 kilometres southwest of Fort St. John and 200 kilometres east of Mackenzie. In addition, WMFNs is currently in the process of negotiating supplementary reserve land through Canada's Treaty Land Entitlement process, where they have identified 10,000 acres in a variety of regions within the Treaty. The community is located in the PRRD which is described in Section 7.

While the traditional language of WMFNs is Dunne-za (Beaver), an Athabaskan-Eyak-Tlingit language, the main dialect spoken today is Cree. Beaver people call themselves *Dunne-za*, which means "the real (prototypical) people". The usual English term *Beaver* is a translation of the name used by several of their neighbours, e.g. Dakelh *tsat'en* and Plains Cree *amiskwiwiniw*. In French they are known as the *Gens de Castor* "People of the Beaver". Beaver people have a semi-nomadic heritage, as they have always sustained themselves by using the natural resources found throughout treaty lands. For example, they traveled to their hunting camps every season and daily life was committed to providing food and shelter

for themselves and their families. Integral to their cultural subsistence is an intimate knowledge of the land, wildlife, and the ecology. The culture's traditional ecological knowledge, and thus their spirituality, is derived from a holistic relationship with nature.

The primary cultural lineage of community members is Beaver, with Cree and Saulteau also contributing to the overall genealogy. Accordingly, the community considers itself to be a collection of three Nations that have come together under the designation of WMFNs; the "s" at the end of "First Nation" represents this union. With four families (i.e. Brown, Desjarlais, Dokkie, and Miller) making up the community, the governance structure for the Band Council consists of four councillors and one chief. Each family elects a councillor to represent them on the Council, whereas the community as a whole selects their Chief through a general election. There is also an Elders Council that consists of one Elder from each family. Its primary role is to serve in an advisory capacity to the Band Council on matters related to communal rights and resources.

At the time of the 2001 Census, the Band had an on-reserve population of approximately 52, which was a decrease of 24.6% over the 1996 population of 69. As shown in Table 6.2-2, the on-reserve population has increased significantly to approximately 81 people.

**Table 6.2-2 West Moberly First Nations Registered Population December 2006**

Residency	Number of People
Males on own Reserve	46
Females on own Reserve	35
Males on other Reserves	0
Females on other Reserves	1
Males off Reserve	49
Females off Reserve	64
<b>Total Registered Population</b>	<b>195</b>

Source: INAC First Nations Profiles

The community is located off of secondary Highway 29 which provides access from Chetwynd to Hudson's Hope and on to Fort St. John. The roads on the reserve itself are gravel. Winter weather can present challenges to local roadways.

Facilities located within the community include a Band Office, education centre, and a health centre. With respect to on-reserve services, the Band Office administers various departments that include education, housing, health care, and land use. Community-based education services include an after-school program, post-secondary education support and short-term specialized training. Parents with school age children have the option to either have them attend Moberly Lake Elementary until Grade 5 and then go to Chetwynd for higher grades, or enroll them in Chetwynd schools for their entire education. The health centre focuses on education and prevention programs and provides services such as immunizations, mental health counselling, pre-natal nutrition, drug and alcohol prevention and an adult in-home support program. Other necessary services provided by surrounding communities such as Moberly Lake and Chetwynd include fire protection, police protection, health care, postal services, and recreation.

The majority (if not all) of the population continues to participate in a mixed economy. Through continual use of natural resources, community members remain highly skilled in

hunting, trapping, fishing, and gathering plants for food, medicinal purposes, and economics. Many members are either directly or indirectly employed by the resource sector.

The Band owns and operates a contracting company that provides industrial services to sectors such as oil & gas, forestry, mining, and wind-farms. Recognizing the rising interest by society in healthy living, the Band also has opened a hemp farm adjacent to the reserve with the intention of selling seed, oil, and fibre to the Canadian market. As a member of the Treaty 8 Tribal Association, West Moberly is also working co-operatively with other members of the Association to develop stronger business capabilities to enable them to take advantage of opportunities on Treaty 8 lands and elsewhere.

#### **6.2.4 McLeod Lake Indian Band**

The McLeod Lake Indian Band community is located on the McLeod Lake No. 1 reserve approximately 145 kilometres north of Prince George and about 50 kilometres south of Mackenzie. The reserve, which is approximately 110 hectares in size, is part of the Treaty 8 lands. The community is located in the RDFFG which is described in Section 7.

The McLeod Lake Indian Band has approximately 430 Band members. The majority of the members live in Prince George, a quarter live at McLeod Lake and the remaining members live throughout BC and across Canada. The language of the people is Tse'Kehne (Sekani in English), a Carrier word meaning 'people of the rock.' Few members still speak the language. The Band is governed by an elected Chief and Council who serve three year terms. The current Chief and Council were elected in June 2005.

Traditionally, the Sekani were hunters-gatherers. The majority of Band members trapped as a way of living until the late 1960s. The northern portion of their traditional territory was flooded in 1967 with the creation of Williston Lake. Thereafter, the Sekani began to migrate to the cities (Prince George and Vancouver), or took jobs in the lumber industry.

Today children are schooled locally at McLeod Lake Elementary School and at Mackenzie Secondary. There was a high drop-out rate in the 1960s and 1970s; however, students began graduating from high school in the mid-1980s. By 1985, at least two Band members acquired university degrees. By the mid-1990s, the Band had developed a sophisticated education program focusing on incentives for its students. This move saw a notable increase in the number of graduates from high school and the number of people graduating from college or university.

The Band started a new logging company in 1989, Duz Cho Logging. The company successfully bid on contracts in industry paying off the loan it acquired to put the company together, and went on to amass profit which the Band used to fund other projects.

The Band began efforts to acquire a treaty in 1973 and it succeeded in signing a treaty with both Canada and British Columbia in April 2000 giving the Band 21,818 hectares of land and \$36 million. This was an adhesion agreement to the original Treaty 8 settlement. The Band members decided against joining the Treaty 8 Tribal Association.

Following signing of the Treaty, the Band opened its office in Prince George to provide services to its members living there. In 2002, it created a construction company called Duz Cho Construction LP and bought a building at Chetwynd to bid on leases in the oil & gas industry. Duz Cho Construction became profitable only three years after its creation.

In 2003, the Band bought 75% of the shares in Summit Pipeline Services out of Quebec and opened an office in Calgary, Alberta. The company works primarily in pipelines in Western Canada. Today, the Band owns three companies, has six offices in two provinces with an asset base of some \$300 million in land and standing timber.

### **6.2.5 Saulteau First Nations**

The Saulteau First Nations community is located on the East Moberly Lake No. 169 Reserve at the east end of Moberly Lake approximately 100 kilometres southwest of Fort St. John and about 200 kilometres east of Mackenzie. The reserve is approximately 3,026 hectares in size. The community is located in the Peace River Regional District which is described in Section 7.

The Saulteau community is governed by a Chief and Council.

The Saulteau have the largest population of the four Bands who have expressed an interest in the MGEC. At the time of the 2001 Census, the Band had a population of approximately 778, of which approximately 330 were living on the reserve. The Saulteau have indicated that the current population is closer to 900 and that interest in living in the community is growing.

According to the 2001 Census for East Moberly Lake No. 169, 38% of the on-reserve population was under the age of 15, 85% was under the age of 45 and the median age was 23 compared to 18% and 61% respectively for the province as a whole and a median age of 38. Similar statistics are not available for the off-reserve population, many of whom live in Chetwynd.

The community is located off of secondary Highway 29 which provides access from Chetwynd to Hudson's Hope and on to Fort St. John. The roads on the reserve itself are gravel. Winter weather can present challenges to local roadways.

Facilities in the Saulteau community include a Band hall, Band office, a healing centre, youth centre, and the Muskoti Learning Centre.

Community-based health services include home support, drug and alcohol counselling, immunizations and pre-natal care and a psychologist who comes to the community monthly. Other health care services as well as hospital services are accessed in Chetwynd and ambulance service is provided by the Chetwynd ambulance station or the closest car at the time of the call.

Educational services are provided in the community for adults and pre-school children. The Muskoti Learning Center provides opportunities for adult Band members to receive their Dogwood or General Education Degree. The learning centre is working to expand the scope of programs offered. A Head Start program is offered for children up to age 6 and K-4 and K-5 programs are offered to prepare children for kindergarten. School age children can either attend Moberly Lake Elementary until Grade 5 and then go to Chetwynd for higher grades or attend Chetwynd schools for their entire education.

The main economic activities in the community are a cattle ranch and farm, silviculture, gravel excavation and sales, and, increasingly contracting by individuals and through Saulteau-owned businesses such as Three Nations Ventures, Six Nations Ventures, and 4 Evergreen Resources, Inc. The Saulteau First Nations is also working co-operatively with

other Treaty 8 First Nations to develop stronger business capabilities to enable them to take advantage of opportunities on the Treaty 8 lands and elsewhere.

## **6.3 TRADITIONAL LAND USE AND KNOWLEDGE**

### **6.3.1 Baseline Conditions**

A Traditional Land Use (TLU) Sites Assessment for the proposed MGEC was undertaken in October 2006. Representatives of the Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band participated in the study. The consultant who undertook the TLU Sites Assessment has a long-standing information sharing agreement in place with the First Nations involved in the assessment, and there was an understanding with the Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band that the information sharing agreement protocol would be followed for this project.

The main objective of the study was to collect site-specific traditional land use information directly associated with the MGEC project. As such, the entire project site as well as a 250-meter buffer around all project components was examined.

The TLU Sites Assessment consisted of a site file search of previously recorded archaeology sites using the BC Heritage Resource Inventory Application and the Remote Access to Archaeological Data, a review of literature pertaining to the project area and a field program focussed on identifying and documenting TLU sites in proximity to the proposed development.

The Assessment found that the project area has already sustained considerable impact from industrial activities in the area. However, despite this, 61 TLU sites were identified within the study area with three being identified as requiring mitigation. These were two sites where it was recommended that the application of chemicals be avoided and one site where a single trap was located.

A copy of the Traditional Land Use Sites Assessment is in Appendix G of this Application.

### **6.3.2 Potential Project Effects**

Although 61 sites were identified in the TLU study area, none of the sites will be directly impacted by the project and mitigation was only recommended for three of the sites as follows:

- Site 3 (east side of site near proposed access road to Coquawaldie Road) where application of chemicals is to be avoided.
- Site 17 (northeast point of site near power line ROW) where application of chemicals is to be avoided.

These sites are in the fringe of trees in areas that will not be disturbed by the project.

- Site 40 is a single trap of a registered trap line which is on the edge of the project site.

Contact has been made with the trapper and discussions are ongoing regarding the location of the trap as it was found on private land. The project will not directly impact the trap.

### **6.3.3 Enhancement and Mitigation**

As per the recommendations of the TLU Sites Assessment, herbicides or pesticides will not be applied to the areas of Site 3 and Site 17.

Contact has been made with the trapper regarding the location of the trap. Information on the project and as well as a site map have been provided to the trapper.

Given the mitigation measures identified above, it is not anticipated that the construction or operation of the MGEC will negatively affect traditional land use knowledge in the area directly associated with the MGEC project.

## **6.4 TREATY RIGHTS**

### **6.4.1 Baseline Conditions**

Although Treaty 8 was signed in 1899, discussions regarding the intent and implementation of the Treaty continue to this day. According to Treaty 8 First Nations members, any activity occurring on Treaty 8 lands potentially affects Treaty rights and, as such, it is important for industry and developers coming to the area to inform Treaty 8 First Nations of the project and engage in consultation with Treaty 8 First Nations with an interest in the particular project at hand to ensure that any effects on Treaty rights are avoided or minimized.

Discussions with the First Nations with an interest in the project have identified the following as Treaty Rights that can be affected by project development in general:

- Fishing
- Hunting
- Trapping
- Maintaining traditional ways of life
- Sustenance gathering

### **6.4.2 Potential Project Effects**

The Traditional Land Use Sites Assessment did not identify any sites that would be directly affected by the MGEC but did identify three sites within the broader project area that required mitigation. The specific uses for two of the sites identified as requiring mitigation are confidential to the First Nations who participated in the study. However, as per the TLU Sites Assessment recommendations, MGELP has committed to avoiding chemical use in the areas where this was identified as a potential issue.

The third site identified in the TLU Sites Assessment contained one trap and, as with the other sites, it will not be directly affected by the project. Discussions with the trapper confirmed that he was not a First Nations individual. The trapper indicated that he currently trapped coyotes and wolves at that location as it was already too close to civilization for lynx and marten. The trapper has been advised that the trap was located on BCR Properties Ltd. land.

The First Nations identified the potential for increased interaction between large trucks and wildlife as a concern and a potential effect that could affect Treaty rights. As discussed in more detail in Section 6.7, it is estimated that the project could result in a maximum of 6 to 8 additional animals being killed every five years and that the actual number would likely be

less than that. Therefore, it is anticipated that there will be no notable effect on hunting by First Nations in the Treaty 8 territory as a result of the operation of the MGEC.

### 6.4.3 Enhancement and Mitigation

As noted above, MGELP will avoid the use of herbicides or pesticides in the two sites where this was identified as a potential issue.

Further, and perhaps most importantly, MGEC will continue to work with the West Moberly, Saulteau, and Fort Nelson First Nations, the McLeod Lake Indian Band, and the T8TA through the construction and operation of the MGEC to ensure that any potential issues that are identified are dealt with in a timely manner.

Based on the information in the previous section and the mitigation measures proposed, it is not anticipated that the MGEC will negatively affect the Treaty rights of the Treaty 8 First Nations.

## 6.5 EMPLOYMENT AND INCOME

### 6.5.1 Baseline Conditions

Individuals from the four First Nations who have expressed an interest in the MGEC are employed in, or have experience in, a variety of positions and occupations.

The most recent statistical information available is from the 2001 Census; however, as a result of small population of some of the communities or the incomplete enumeration of others, a significant amount of Census data is suppressed, as is evident in the Tables that follow.

As shown in Table 6.5-1, in 2001 the participation rate for on-reserve First Nations varied from 50% to approximately 64%. According to local First Nations, the participation rate is much higher today as the economic boom has provided more economic and employment opportunities in northeastern British Columbia. What this means is that there are First Nations individuals in the area with experience in the labour force who may be interested in opportunities presented by the MGEC.

**Table 6.5-1 Participation Rate (2001)**

	East Moberly Lake No. 169	West Moberly Lake No. 168A	McLeod Lake 1	Fort Nelson 2
Participation Rate (%)	57.1	50	63.6	n/a

Source: Statistics Canada, 2001 Census

As shown in Tables 6.5-2 and 6.5-3, individuals from the First Nations who have expressed an interest in the project have experience in a number of different industries (e.g., resource-based industries, manufacturing and construction industries) and occupations (e.g., trades, transport and equipment operators and related occupations, occupations unique to primary industry) which could provide experience relevant to project opportunities. Once again, it is

likely that the breadth of experience and numbers of people with experience in different areas have increased since the 2001 Census as First Nations representatives have stated that the employment situation for First Nations is better today than it was earlier in the decade.

**Table 6.5-2 Employment by Industry Division**

Industry Division	East Moberly Lake No. 169	West Moberly Lake No. 168A	McLeod Lake 1	Fort Nelson 2
Total experienced labour force	120	15	30	n/a
Agriculture and other resource-based industries	35	0	15	n/a
Manufacturing and Construction Industries	15	0	10	n/a
Wholesale and retail trade	10	0	0	n/a
Health and Education	15	0	0	n/a
Business Services	15	0	0	n/a
Other Services	30	10	15	n/a

Source: Statistics Canada, 2001 Census

**Table 6.5-3 Occupation by Industry Division**

Occupation	East Moberly Lake No. 169	West Moberly Lake No. 168A	McLeod Lake 1	Fort Nelson 2
Total experienced labour force	120	15	35	n/a
Management Occupations	10	0	10	n/a
Business, finance and administration occupations	10	10	10	n/a
Social science, education, government service and religion	10	0	0	n/a
Sales and service occupations	30	10	0	n/a
Trades, transport and equipment operators and related occupations	20	0	10	n/a
Occupations unique to primary industry	30	0	10	n/a
Occupations unique to process, manufacturing and utilities	10	0	0	n/a

Source: Statistics Canada, 2001 Census

Earnings information from the 2001 Census was only available for East Moberly Lake No. 169 where the average earnings for all people was \$15,346 and the average earnings for those who worked full time/full year was \$27,730.

### **6.5.2 Potential Project Effects**

The MGEC will create various direct and indirect employment opportunities during construction and operation. These are described in more detail in Section 7.3.2.

As with any project, construction jobs will be short-term in nature while operations jobs and fuel supply opportunities will be much longer in duration.

The four First Nations that have expressed an interest in the MGEC are very interested in identifying employment and economic opportunities for their members. They have expressed interest in construction opportunities as well as in ongoing opportunities during operations. During operations provision of fuel to the facility or indirect opportunities are of greater interest to most of the First Nations as it would allow their members to continue living in their home communities while benefiting from the opportunities created by the project.

### **6.5.3 Enhancement and Mitigation**

MGELP will continue to work with the First Nations who have expressed an interest in the project to ensure that they are aware of the employment opportunities available and the means through which they can increase their chances of being successful in taking advantage of the opportunities. For example, discussions have been held with First Nations companies who could sub-contract portions of the construction work and provide employment to local First Nations individuals. As part of the EPC Contractor selection process, potential bidders will be provided with information on the capabilities of local businesses, including First Nations businesses. Once the EPC contractor is selected, First Nations will be provided with the name of the contact for the EPC contractor and will have the opportunity to discuss potential opportunities with the EPC contractor.

MGELP will also prepare an Information Sheet identifying the jobs available during construction and operations and provide it to the First Nations.

In addition to the potential opportunities discussed above, two First Nations-specific opportunities are being proposed specifically for individuals from the Treaty 8 First Nations who have expressed an interest in the project. These are as follows:

- A 'Job Shadowing' program will be implemented during construction, subject to the agreement of the construction contractor, for interested individuals from the four First Nations. This program would provide participants with an opportunity to spend a dedicated amount of time (e.g., 3 to 6 months) assisting a particular trade and observing different roles and responsibilities in the workplace. The objective of this on-the-job experience would be to provide insights for participants and help them formulate their future career paths. Two "job shadowing" positions will be available at any given time. Specific details of the program will be refined and discussed with the First Nations.
- Two apprenticeship positions (e.g., trade, non-trade) will be available during operations for First Nations individuals from the First Nations who have expressed an interest in the project. MGEC will work with the First Nations to identify individuals who may be qualified for this opportunity. The details of this program will be discussed with First Nations and refined during the construction phase of the project.

Given the interest in employment opportunities expressed by the First Nations and the enhancement measures identified above, it is anticipated that the project will have a positive effect on First Nations employment during construction and an ongoing positive effect through the life of the project given the direct and indirect employment opportunities that the project will generate.

## **6.6 BUSINESS OPPORTUNITIES**

### **6.6.1 Baseline Conditions**

In recent years all four First Nations who have expressed an interest in the project have been working to develop businesses that employ their members as well as other local residents. Many of these businesses are being developed in a manner that provides for the ability to undertake economic activity while at the same time respecting the values that are important to the First Nations.

Today, First Nations with an interest in the project as well as individual First Nations members have a variety of businesses including many that may be capable of providing goods or services to the project. These include:

- Contractors and sub-contractors (installation, clearing, reclamation);
- Equipment suppliers;
- Transportation (employees, fuel, waste);
- Accommodation (e.g., construction camps); and
- Waste wood sourcing.

Examples of businesses owned by the First Nations who have expressed an interest in the project include:

- Eh-Cho-Dene, a Fort Nelson First Nation-owned heavy construction company that works in a number of resource sectors providing services including site preparation, road building, lease preparation, maintenance of winter roads, oil field maintenance and seismic line cutting, slashing crews, gravel and gravel trucks.
- 4 Evergreen Resources Inc., a Saulteau First Nations-owned resource development front end company that undertakes projects in a number of resource sectors including oil and gas, coal, forestry and mining. 4 Evergreen Resources also works with other Treaty 8 First Nations companies to tackle larger projects.
- Duz Cho Logging/Contracting, the McLeod Lake Indian Band company that has been providing logging and other forestry services for over twenty years and has expanded to provide contracting and other services to resource industries.
- Dunne Za, the West Moberly First Nations contracting company that provides various services to natural resources industries, including forestry, mining, and oil & gas. Services include logging, trucking, camp catering, engineering, forest tenure management, planning and timber development and first aid.

A number of these companies work co-operatively or with other local First Nations companies (e.g., Doig River Energy (DRE), MYCO/DRE Services 2005 Ltd. (MDS)) to enable them to expand the range of contracts they can bid on.

## 6.6.2 Potential Project Effects

Construction and operation of the MGEC will create opportunities for First Nations and other businesses in the study area. As noted earlier, the four First Nations that have expressed an interest in the MGEC are very interested in identifying economic opportunities for their members, particularly in the areas in which they have been working to develop their business skills as identified above. They have expressed interest in construction opportunities as well as in ongoing opportunities during operations.

### Construction

Businesses providing goods and services required by the project and its workers could experience an increase in demand as a result of project-related expenditures during construction. The project will generate business opportunities through direct and indirect purchases of materials, equipment, and services and through direct and indirect workers spending their wages, or a portion of their wages, in the region. Opportunities could be created for a variety of local businesses including those operated by First Nations with an interest in the project.

Discussions have been held with all First Nations with an interest in the project regarding their interest in and capability of providing services that could be required by the project.

### Operations

During operations, the MGEC will require ongoing supplies of goods and services as well as specialized services during major maintenance events. Local businesses will benefit from supplying goods and services directly to the facility and facility employees on an ongoing basis. The First Nations have indicated a particular interest in exploring opportunities to supply fuel to the facility as this business opportunity would allow their members to continue living in their home communities while benefiting from the opportunities created by the project. The ability of local businesses to supply the goods and services required will be explored further as the project studies proceed.

Overall, businesses in the study areas will benefit from the construction and operation of the MGEC. The degree of benefit will vary from business to business. It is not expected that there will be notable negative effects on business or industry in the study area. As described in more detail in the following section, MGELP will work with the First Nations to ensure that they have the information required to respond to project opportunities.

## 6.6.3 Enhancement and Mitigation

MGELP is working with First Nations to help ensure that they can take advantage of opportunities offered by the project and is exploring a number of different opportunities for First Nations including contract services and labour.

The Sauteau First Nations expressed interest in bidding on the EPC contract for the project and in response the MGEC provided a copy of the bid documents to the Sauteau First Nations. Following this, MGELP met with the representatives of Sauteau and DRE/MDS to discuss the potential opportunity and it was determined that there was greater interest from the Sauteau First Nations and DRE/MDS related to the provision of labour than in undertaking the overall EPC contracting. MDS has provided the MGEC with a listing of available labour services. This information will be provided to the EPC contractor once one is selected.

With a view to ensuring that local First Nations businesses have an opportunity to compete for the provision of goods and service during construction and operations, MGELP will provide the First Nations with an Information Sheet describing the goods and services that will be required for the MGEC.

Prior to the start of construction and operations, a contractors' open house will be held to:

- provide businesses with information about purchasing procedures,
- identify qualifications, insurance, and information requirements,
- discuss completion of quotation documents,
- identify major contractors,
- identify anticipated timing and breakdown of contracts, and
- add names to the registry of local businesses.

The contractors' open house will be widely advertised in Mackenzie and the First Nations communities with an interest in the project. Recognizing that the open house will be held in Mackenzie, MGELP will also provide the information directly to interested First Nations for distribution to their business interests. MGELP could also meet directly with First Nations to discuss potential opportunities should the First Nations feel that this would be beneficial.

Given the interest in business opportunities expressed by the First Nations and the enhancement measures identified above, it is anticipated that the project will create opportunities for First Nation's businesses during construction and operation. However, it is important to note that despite the efforts that will be made to encourage local contractors and suppliers to bid on business opportunities with the project, it cannot be guaranteed that all of those interested will be successful.

## **6.7 TRANSPORTATION AND TRAFFIC**

As per the ATOR, this section addresses potential interactions between wildlife and project related vehicles. Section 5.11 provides a more detailed assessment of this issue.

### **6.7.1 Baseline Conditions**

As noted in Section 5, concerns have been raised by First Nations regarding the potential for an increase in the deaths of large animals as a result of collisions with trucks delivering fuel to the MGEC. Wood residue will be trucked to the MGEC site from three main supply areas using the roads indicated below (Figure 5.11-1):

- Bear Lake – Mackenzie: Trucks will travel on Highway 97 and Highway 39.
- Chetwynd – Mackenzie: Trucks will travel on Highway 97 and Highway 39.
- Fort St. James – Mackenzie: Trucks will travel on forestry roads, including Germansen North Road and Ministry of Forest road 2a.

The baseline for assessing project effects required determining existing motor vehicle traffic and the number of animal deaths from collision with motor vehicles on the roads that would be used by trucks delivering wood residue to the MGEC site. From this information, the frequency of animal deaths from collisions with motor vehicles were determined and can be used to forecast the potential number of additional animal deaths on these same roads from the MGEC truck traffic. No existing statistics of this type are presently available for the area in the vicinity of the project. ICBC statistics on animals killed by motor vehicles on the

highways that would be used by the MGEC were compiled for 2001-2005 and found that the number of animal deaths from vehicles in the region was much higher for deer and moose than for elk and bear. Of the approximately 147 animals killed annually on average, 53% were deer, 40% were moose, 4% were elk and 3% were bear.

The means through which the data were gathered and the specific baseline statistics compiled are contained in Section 5.11.1 of this Application.

### **6.7.2 Potential Project Effects**

Wood residue will be delivered to the MGEC by independent trucking firms. The number of trucking firms, sources of wood residue, and delivery routes are expected to change over the life of the project. The main supply areas are Mackenzie, Chetwynd, Bear Lake and Fort St. James. The expected truck routes from Chetwynd and Bear Lake are provincial highways, while forestry roads will be used for deliveries from Fort St. James. Baseline conditions for these roads are described in Section 5.11.1.

Because of the variability of fuel delivery supply areas, truck sizes and traffic on different delivery routes over the project lifetime, two delivery scenarios were considered for estimating large animal deaths from traffic accidents. The baseline scenario is as per the Approved Terms of Reference, while the alternate scenario includes a low rate of flow from Bear Lake, which relates to conditions in the early years of operation.

The baseline scenario is estimated to result in potentially 16 additional large animal deaths every five years, mostly deer and moose while the alternate scenario results in an average of 18 large animal deaths potentially every five years. These estimates are expected to be higher than will actually occur because they do not take into account:

- Use of drivers that are very familiar with the sections of roads where there is a higher risk of wildlife crossings.
- Use of professional drivers qualified and experienced for operation of heavy duty vehicles.
- Communication between drivers operating on the same route and sharing information on sightings of wildlife and areas where extra caution is required.
- That some of the delivery trucks will be back haul (i.e., trucks that would have been traveling these same road segments empty).

Additional detail regarding anticipated project effects can be found in Section 5.11.2

### **6.7.3 Enhancement and Mitigation**

The MGEC will take reasonable precautions and measures to mitigate the potential for impacting large animals. Although there are limits to the ability to impose requirements on contracted trucking services, there are strong natural incentives for truck drivers and truck owners to avoid collisions with large animals due to incurring economic losses and risk of personal injury that can result from such collisions. In addition, drivers traveling the same route daily become familiar with the areas where animal crossings are common and the time of day when wildlife are most likely to be active.

The MGEC expects that the firms and drivers that provide trucking services will comply with applicable traffic laws and regulations and that only qualified truck drivers will be used.

Additional training material may be distributed to remind drivers of ways to minimize the risks of collisions with wild animals such as being cautious at dusk and dawn, being cautious near areas where animals may be present (e.g., creeks, drainage cross roads), being aware that animals travel in groups, watching for signs of animals (e.g., reflections from animals' eyes) and finally, if a crash is unavoidable, means through which to reduce risk.

The MGELP will require that trucking contractors report any incidents of collisions with bear, elk, deer, or moose and will keep an on-going annual record of the species of animal killed, accident location, date, time of day, and accident particulars. If a high frequency of animal deaths is noted on a particular road segment or by a specific trucking firm, MGELP will attempt to reduce future animal fatalities by requesting contractors implement relevant driver training or policies.

Additional information on mitigation and enhancement is available in Section 10.

However, even with mitigation it is likely that there will still be some animal deaths from traffic accidents on an annual basis for the life of the project. Given the small number of animals involved, the effect on First Nations hunting and traditional use, and, in turn, on First Nations communities, is not anticipated to be significant. This issue will be discussed further with the First Nations as the Application review proceeds.

## **6.8 OTHER EFFECTS**

No other potential effects were identified during the course of Application preparation.