

# Health Care Services Plan

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*Site C Clean Energy Project*

*Revision 1: June 5, 2015*

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## 1.0 Background

### 1.1 The Site C Clean Energy Project

The Site C Clean Energy Project (the Project) will be the third dam and generating station on the Peace River in northeast B.C. The Project will provide 1,100 megawatts of capacity and about 5,100 gigawatt hours of energy each year to the province's integrated electricity system. The Project will be a source of clean, reliable and cost-effective electricity for BC Hydro's customers for more than 100 years.

The key components of the Project are:

- an earthfill dam, approximately 1,050 metres long and 60 metres high above the riverbed;
- an 83 kilometre long reservoir that will be, on average, two to three times the width of the current river;
- a generating station with six 183 MW generating units;
- two new 500 kilovolt AC transmission lines that will connect the Project facilities to the Peace Canyon Substation, along an existing right-of-way;
- realignment of six segments of Highway 29 over a total distance of approximately 30 kilometers; and
- construction of a berm at Hudson's Hope.

The Project will also include the construction of temporary access roads, a temporary bridge across the Peace River, and worker accommodation at the dam site.

### 1.2 Project Benefits

The Project will provide important benefits to British Columbia and Canada. It will serve the public interest by delivering long term, reliable electricity to meet growing demand; contribute to employment, economic development, ratepayer, taxpayer and community benefits; meet the need for electricity with lower GHG impact than other resource options; contribute to sustainability by optimizing the use of existing hydroelectric facilities, delivering approximately 35 per cent of the energy produced at the W.A.C. Bennett Dam, with only five per cent of the reservoir area; and include an honourable process of engagement with First Nations and the potential for accommodation of their interests.

### 1.3 Environmental Assessment Process

The environmental assessment of the Project has been carried out in accordance with the *Canadian Environmental Assessment Act, 2012* (CEAA 2012), the *BC Environmental Assessment Act* (BCEAA), and the *Federal-Provincial Agreement to Conduct a Cooperative Environmental Assessment, Including the Establishment of a Joint Review Panel of the Site C Clean Energy Project*. The assessment considered the environmental, economic, social, heritage and health effects and benefits of the Project, and included the engagement of

Aboriginal groups, the public, all levels of government, and other stakeholders in the assessment process.

Detailed findings of the environmental assessment are documented in the Site C Clean Energy Project Environmental Impact Statement (EIS), which was completed in accordance with the Environmental Impact Statement Guidelines (EIS Guidelines) issued by the Minister of Environment of Canada and the Executive Director of the Environmental Assessment Office of British Columbia. The EIS was submitted to regulatory agencies in January 2013, and amended in August 2013 following a 60 day public comment period on the assessment, including open house sessions in Fort St. John, Hudson's Hope, Dawson Creek, Chetwynd, town of Peace River (Alberta) and Prince George.

In August 2013, an independent Joint Review Panel (JRP) commenced its evaluation of the EIS, and in December 2013 and January 2014 undertook five weeks of public hearings on the Project in 11 communities in the Peace region, including six Aboriginal communities. In May 2014, the JRP provided the provincial and federal governments with a report summarizing the Panel's rationale, conclusions and recommendations relating to the environmental assessment of the Project. On completion of the JRP stage of the environmental assessment, the CEA Agency and BCEAO consulted with Aboriginal groups on the JRP report, and finalized key documents of the environmental assessment for inclusion in a Referral Package for the Provincial Ministers of Environment and Forests, Lands and Natural Resource Operations.

Construction of the Project is also subject to regulatory permits and authorizations, and other approvals. In addition, the Crown has a duty to consult and, where appropriate, accommodate Aboriginal groups.

## **1.4 Environmental Assessment Findings**

The environmental assessment of the Project focused on 22 valued components (VCs), or aspects of the biophysical and human setting that are considered important by Aboriginal groups, the public, the scientific community, and government agencies. In the EIS, valued components were categorized under five pillars: environmental, economic, social, heritage and health. For each VC, the assessment of the potential effects of the Project components and activities during construction and operations was based on a comparison of the biophysical and human environments between the predicted future conditions with the Project, and the predicted future conditions without the Project.

Potential adverse effects on each VC are described in the EIS along with technically and economically feasible mitigation measures, their potential effectiveness, as well as specific follow-up and related commitments for implementation. If a residual effect was found on a VC, the effect was evaluated for significance. Residual effects were categorized using criteria related to direction, magnitude, geographic extent, context, level of confidence and probability, in accordance with the EIS Guidelines.

The assessment found that the effects of the Project will largely be mitigated through careful, comprehensive mitigation programs and ongoing monitoring during construction and operations.

The EIS indicates that the Project is unlikely to result in a significant adverse effect for most of the valued components. However, a determination of a significant effect of the Project was found on four VCs: Fish and Fish Habitat, Wildlife Resources, Vegetation and Ecological Communities, and Current Use of Lands and Resources for Traditional Purposes.

## **1.5 Environmental Assessment Conclusion**

On October 14, 2014, the Provincial Ministers of Environment and of Forests, Lands and Natural Resource Operation decided that the Project is in the public interest and that the benefits provided by the Project outweigh the risks of significant adverse environmental, social and heritage effects (<http://www.newsroom.gov.bc.ca/2014/10/site-c-project-granted-environmental-assessment-approval.html>). The Ministers have issued an Environmental Assessment Certificate setting conditions under which the Project can proceed.

Further, on November 25, 2014, The Minister of Environment of Canada issued a Decision Statement confirming that, while the Project has the potential to result in some significant adverse effects, the Federal Cabinet has concluded that those effects are justified in the circumstances. The Decision Statement sets out the conditions under which the Project can proceed.

## **1.6 Development of Mitigation, Management and Monitoring Plans**

Mitigation, management and monitoring plans for the Project have been developed taking into account the measures proposed in the EIS, information received during the Joint Review Panel hearing process, and the Report of the Joint Review Panel on the Project. Those plans are consistent with, and meet requirements set out in, the conditions of the Environmental Assessment Certificate and of the Decision Statement issued on October 14, 2014 and November 25, 2014 respectively.

In addition, in accordance with environmental best practices (Condition 3.1), these plans were informed by the best available information and knowledge, based on validated methods and models, undertaken by qualified individuals and apply the best available economically and technologically feasible mitigation strategies. These plans contain provisions for review and update as new information on the effects of the Project and on the efficacy of the mitigation measures become available.

## **2.0 Health Care Services Plan**

### **2.1 Objective and Scope**

The objective of the Health Care Services Plan is to describe the measures that will be used to deliver on-site health care for the Project workforce, to coordinate health program delivery with NHA, and to provide healthcare service information to new resident workers and their families.

The scope of the Health Care Services Plan is developed in accordance with Condition 42 of the Environmental Assessment Certificate, as indicated in the table below.

EAC Condition 42	Plan Reference
The EAC Holder must manage increased demands resulting from the influx of the Project workforce on community health care and social services by implementing mitigation measures detailed in a Healthcare Services Plan. The Healthcare Services Plan must include the following:	
<ul style="list-style-type: none"> <li>Implement on-site health care comprised of physician and nursing services to manage non-urgent health issues for the workforce residing in the construction camps.</li> </ul>	Section 6.1 On-Site Health Care: Medical Clinic
<ul style="list-style-type: none"> <li>Establish a process for coordination of program delivery with the Northern Health Authority (NHA).</li> </ul>	Section 6.2 Co-ordination of Program Delivery with Northern Health Authority
<ul style="list-style-type: none"> <li>Establish a process for providing new resident workers and their families with local information about health, education and social services.</li> </ul>	Section 6.3 Community Services for New Residents Information Package
The EAC Holder must provide this draft Healthcare Services Plan to NHA, Peace River Regional District, City of Fort St. John and District of Hudson's Hope for review a minimum of 90 days prior to the commencement of construction.	Section 2.2 Consultation
The EAC Holder must file the final Healthcare Services Plan with the NHA, Peace River Regional District, City of Fort St. John and the District of Hudson's Hope a minimum of 30 days prior to the commencement of construction.	
The EAC Holder must develop, implement and adhere to the final Healthcare Services Plan, and any amendments, to the satisfaction of EAO.	

## 2.2 Consultation

Many of the conditions require BC Hydro to consult or collaborate with certain government agencies and Aboriginal groups in respect of measures and plans required by the conditions.

BC Hydro began consultation on the Project in late 2007, before any decision to advance the Project to an environmental assessment. BC Hydro's consultation with the public, stakeholders, regional and local governments, regulatory agencies, and Aboriginal groups is described in EIS Section 9, Information Distribution and Consultation.

Additional information on the consultation process and a summary of issues and concerns raised during consultation are provided in:

- Volume 1 Appendix G, Public Information Distribution and Consulting Supporting Documentation

- Volume 1 Appendix H, Aboriginal Information Distribution and Consultation Supporting Documentation
- Volume 1 Appendix I, Government Agency Information Distribution and Consultation Supporting Documentation
- Volume 5, Appendix A01 to A29, Parts 2 and 2A, Aboriginal Consultation Summaries
- Technical Memo: Aboriginal Consultation

Draft versions of a number of the mitigation, management and monitoring plans required by the conditions were submitted to applicable government agencies and Aboriginal groups for comment on October 17, 2014.

Comments on these draft plans were received from various government agencies and Aboriginal groups during November and December 2014, and were considered in the revisions to these plans. BC Hydro's consideration of these comments is provided in the consideration tracking tables that accompany each plan.

On December 15, 2014, Treaty 8 Tribal Association (T8TA), on behalf of West Moberly, Saulneau and Prophet River First Nations, submitted to BC Hydro a letter in response to BC Hydro's request for comment on the Plans sent on October 17, 2014. The letter included several appendices, including the Joint Review Panel (JRP) Report and transcripts from the JRP hearings in December 2013 and January 2014. BC Hydro responded to the three First Nations on January 21, 2015 noting that the October 17 2014 request for comments on the plans was to provide an opportunity to the First Nations to submit to BC Hydro any information they wanted to provide in relation to the Plans. BC Hydro advised that it was aware of the information referred to in T8TA's letter when the plans were prepared, and advised that it was preparing a table setting out where any mitigation measures identified by representatives of the three First Nations during the hearings are considered in the draft plans and would provide that to the First Nations once complete. Accordingly BC Hydro's responses to those mitigation measures identified by the representatives of the three First Nations during the JRP hearings were provided to the EAO in a separate table by letter dated May 19, 2015. Aside from the December 15, 2014 letter, BC Hydro has not received further comments from these First Nations. A letter of understanding dated April 30, 2015 respecting provision of capacity funding to support review of the plans was entered into by BC Hydro and Sauleau First Nations (on behalf of Sauleau, West Moberly and Prophet River First Nations).

New draft plans (i.e., Housing Plan and Housing Monitoring and Follow-Up Program, and the quarry/pit development plans) were provided to the entities identified in the EAC conditions on April 7, 2015. The Vegetation and Wildlife Mitigation and Monitoring Plan was revised based on comments received on the October 17, 2014 version and based on discussions with Environment Canada and the BC Ministry of Environment, and was re-submitted to applicable entities on April 7, 2015.



Comments on the revised plans were requested by May 11, 2015 to allow for review, consideration of comments and finalization of the plans 30 days prior to the commencement of construction.

Comments were received by this requested date from:

- Fort Nelson First Nation
- Ministry of Forests, Lands and Natural Resource Operations (FLNRO), and
- Métis Nation British Columbia.

The Peace River Regional District submitted their comments on the plan on May 14, 2015. FLNRO submitted additional comments on May 15, 2015, including comments from the BC Ministry of Environment.

BC Hydro considered the comments provided and prepared final plans. On May 19, 2015, BC Hydro submitted the following mitigation, management and monitoring plans to the BC Environmental Assessment Office (BC EAO) for review:

- Construction Environmental Management Plan
- Construction Safety Management Plan
- Fisheries and Aquatic Habitat Management Plan
- Vegetation and Wildlife Mitigation and Monitoring Plan
- Vegetation Clearing and Debris Management Plan
- Aboriginal Plant Use Mitigation Plan
- Aboriginal Training and Inclusion Plan
- Business Participation Plan
- Emergency Services Plan
- Healthcare Services Plan
- Labour and Training Plan
- Cultural Resources Mitigation Plan
- Heritage Resources Management Plan
- Housing Plan and Housing Monitoring and Follow-Up Program
- Wuthrich Quarry Development Plan
- West Pine Quarry Development Plan; and
- Del Rio Pit Development Plan.

The CEA Agency and Environment Canada submitted comments on the revised plan on May 22, 2015. These comments were considered and the final plans were revised accordingly and submitted on June 5, 2015 to the entities identified in the EAC conditions.

### **3.0 Regulatory Context**

Health care services in Canada are primarily publicly provided under provincial jurisdiction, with the federal government responsible for provision of Aboriginal health services and for providing funds to the provinces, per the requirements of the *Canada Health Act*.

In B.C., the Ministry of Health is responsible for providing health services to residents. The Province provides the Medical Services Plan (medically required services), PharmaCare (prescription drug insurance for eligible residents) and the Emergency and Health Services Commission (ambulance services). Six health authorities take primary responsibility for health service delivery. The Northern Health Authority delivers health services to residents of northeast B.C.

NHA has issued a Health and Medical Services Plan Best Management Guide For Industrial Camps (NHA, 2014). This guide describes that health and safety programs required to meet WorkSafeBC minimum requirements for occupational safety are not enough to address the non-occupational and non-urgent health care needs of a camp-based workforce. This guide describes a best practices approach to the development of a Health Services Plan for industrial camps that outlines on-site health services and initiatives beyond the minimum requirements for occupational safety. This Plan meets these NHA best management guidelines.

## **4.0 Baseline Conditions**

Please see Appendix A for a summary of relevant baseline conditions for community services.

## **5.0 Potential Effects of the Project**

Please see Appendix A for a summary of the description of changes to health care services as a result of the Project.

## **6.0 EAC Condition 42: Mitigation Measures**

### **6.1 On-Site Health Care: Medical Clinic**

A medical clinic will be operated at the Project dam site for all Project workers, offering physician and nursing services to manage non-urgent health issues. The medical clinic will provide Project workers with access to primary and preventative health care, and work-related injury evaluation and treatment services to reduce demand on service providers in the community. The clinic is not intended to replace provincial health care services such as hospital, emergency room or specialist care for serious medical incidents.

Examples of health care services that will be available at the medical clinic:

- Access to physician or nursing services
- Vaccination programs
- Access to Northern Health program information (e.g. men's health, women's health initiatives)
- WorkSafe BC case management and treatment
- Treatment of minor injuries
- Medical referrals, prescriptions

The clinic will be co-located with the dam site worker accommodation facility and is planned to open within 90 days of the opening of Phase 1 of that facility (approximately one year after the commencement of construction).

The clinic will be available to all Project workers and clinic staffing and hours will be established, and updated from time to time, to reflect seasonal and daily work schedules, the number of Project workers, actual use and demand from Project workers, and feedback from Northern Health or local physician groups.

Staffing of the clinic will include in-person and / or telemedicine access to the following types of medical service providers: physicians, nurse practitioners and other health care providers such as physiotherapists. Additional service providers, such as physiotherapists or massage therapists, may be invited to provide services on-site depending on the demand for such services and the availability of practitioners.

BC Hydro will enter into a contract with a medical services operator to operate the medical clinic.

Project contractors will be responsible for delivery of WorkSafe BC required first aid response and care at work sites, and for transporting injured workers to regional hospital facilities. Please see the Emergency Services Plan for further information.

## **6.2 Coordination of Program Delivery with Northern Health Authority**

BC Hydro will establish a process for coordination of health program delivery with the Northern Health Authority (NHA). The process will include communication protocols and procedures for implementing and documenting the delivery of health care programs to the Project workforce.

### **6.2.1 Communication Protocol**

BC Hydro will establish a contact person who will be responsible for maintaining contact with Northern Health to coordinate health program delivery to the Project workforce, to identify potential new health program or services, to respond to information requests, and to provide Project information updates to NHA. BC Hydro will offer to meet with Northern Health representatives twice yearly to discuss health program delivery to the Project workforce.

BC Hydro will provide the following information to Northern Health to support their future planning:

- Workforce schedules (e.g. shifts and work rotations)
- Workforce numbers and forecasts
- In-community population forecasts
- Housing Plan for Project workers
- Summary of medical services and health programs for the Project workforce

## **6.2.2 Health Program Delivery**

BC Hydro will review requests from NHA for coordination of delivery of relevant NHA health programs to the Project workforce, in consultation with BC Hydro's medical services provider. BC Hydro will document the delivery of NHA health programs to the Project workforce. Delivery of NHA health programs is anticipated to be primarily through BC Hydro's onsite medical clinic, including provision of information or services.

The following is a summary of the health care service requirements that will be implemented during Project construction by BC Hydro or its contractors:

- Provision of an on-site medical clinic (described above), staffed by physical or nursing professionals
- Requirements for Project contractors to establish an Employee Assistance Program to support the health and well-being of employees and their families
- Requirements for Project contractors to distribute information to their workforce about medical services and health programs.
- Requirements for Prime Project contractors to provide emergency transportation to hospital facilities
- Requirements for Prime contractors to provide industrial first aid care in accordance with WorkSafe BC requirements
- Require contractors to ensure that their workers, who are not covered by the BC Medical Services Plan or an inter-provincial agreement, have medical coverage for non-work related emergency medical incidents. Work related injuries would be governed by WorkSafe BC regulations and requirements.
  - BC Hydro will require major project contractors to ensure that Project workers have emergency medical coverage while present in British Columbia due to employment on the Project and travelling to and from the Project site for work purposes from outside the province of British Columbia.

## **6.3 Community Services for New Residents Information Package**

BC Hydro will provide an information package to new resident workers and their families, with local information about health, education and social services. BC Hydro will contact the agencies in the Fort St. John area (e.g. Fort St. John Visitor Centre, City of Fort St. John) to identify if an information package including health, education and social services is already available to the public, and to obtain permission for BC Hydro to make the package available to Project workers. If there is no existing package, or additional information is required, BC Hydro will prepare the package or augment existing information. The package will be reviewed and updated if necessary yearly.

BC Hydro will require Project contractors to facilitate sharing the information package with their workforce and BC Hydro will make the package available to BC Hydro employees working on the Project.

## 7.0 References

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## **APPENDIX A. POTENTIAL PROJECT EFFECTS AND BASELINE CONDITIONS**

The following section summarizes the potential project effects as described in the EIS section 30.

### **1.1. Introduction**

The interaction between the Project and health services would be expected during the Project construction phase, due to:

- Changes to population associated with direct and indirect workers and their families living in local communities (primarily Fort St. John and area) and the new demand created for health services
- Change in demand from the on-site camp workforce's utilization of health services (BC Hydro 2013a).

### **1.2. Baseline Conditions**

The following baseline conditions were reported in the EIS (BC Hydro 2013a). It is recognized that baseline conditions are dynamic and change from time to time.

#### **1.2.1. Preventative Public Health**

Northern Health offers Preventative Public Health Program services to individuals, families, groups, and communities in homes, schools, and health unit facilities. The Preventative Public Health Program supports healthy growth and development, fosters healthy lifestyles, helps to protect the public from health risks, and works to prevent illness and injury. It is delivered by a wide array of health professionals including: public health nurses, audiologists, speech language pathologists, dental hygienists, and administrative and support staff. Much of this service is delivered through local health units.

The Fort St. John health unit provides community health services to Fort St. John, Taylor, Hudson's Hope and surrounding area. The Dawson Creek health unit services Dawson Creek and the surrounding area, while Chetwynd has its own health unit. The health units include related to adults' and women's health, infants, children and family health, communicable disease prevention and control, dental health services, hearing services, nursing support services, school and youth health, and speech and language (Northern Health 2011a).

#### **1.2.2. Public Health Protection**

Public health protection programs reduce health risks to the public through education and inspection strategies. As part of these programs, public health inspectors are responsible for a range of items including: air quality, drinking water and food safety, radon gas detection, land use (subdivisions, sanitation, sewage disposal), tobacco control, community care licensing, communicable disease and outbreak control, institutional environments (schools, hospitals), recreational water safety (pools, hot tubs), emergency preparedness planning and response, salons, tattooing and other personal services, playground safety, summer camps, industrial camps, public health engineering, and healthy built environments (Northern Health 2011b).

#### **1.2.3. Mental Health and Addiction Services**

Mental health and addiction service staff work with clients who are engaged in substance abuse or who are affected by those who do. Mental health and addiction services are available in Fort St. John, Dawson Creek and Chetwynd. In Fort St. John, the services are co-located and

provide: assessments and treatments, a community response unit, crisis response services, school-based prevention groups and school based prevention presentations, family counselling and support services, substance affected services, recreational therapy, methadone maintenance, and perinatal depression assistance and referrals (Northern Health 2011c).

#### **1.2.4. Men's Health Program**

The men's health program was created by Northern Health in 2012 following a report completed by the Province's Chief Medical Health Officer. This report outlined a number of health challenges for men living in northern B.C., including:

- Higher rates of cancer, suicide, occupational deaths, and chronic disease
- Lower access rates of health care

To address this issue, Northern Health has made men's health a focus area by creating a program to improve the health outcomes of men living in the North (Northern Health 2012a).

#### **1.2.5. Medical, Dental, and Optometry Practitioners**

The number and available specialties of medical, dental and optometry practitioners fluctuates based on the business decisions of practitioners to stay in the region, grow or reduce their practice or retire. In 2011, there were 63 general practitioners (GPs) in the PRRD but in August 2014, there were 53. Thirty-five of these were based in the North Peace Local Health Area in 2011, 30 were in the same area in August 2014 (College of Physicians and Surgeons of BC 2011 and 2014).

In 2012, seven specialists were located in Fort St. John, including an internal medicine specialist, three general surgeons, a diagnostic radiologist, an anatomical pathologist, and a psychiatrist. Nine specialists were located in Dawson Creek, including an ophthalmologist, two obstetricians/gynaecologists, two orthopaedic surgeons, two psychiatrists, a general surgeon, and a diagnostic radiologist (B.C. Ministry of Health 2012). Other medical specialists visit the PRRD to provide specialized services.

In 2011, Fort St. John had nine dentists, Dawson Creek had eight, and Chetwynd had one (College of Dental Surgeons of B.C. 2011). Residents of Hudson's Hope, Taylor, and rural areas travel to these communities for dental service.

In 2012, there were eight optometrists currently providing service in the PRRD (BCAO 2012). These optometrists serviced multiple communities in Dawson Creek, Chetwynd, Tumbler Ridge, and Fort St. John. Five of the optometrists had practices in Fort St. John, while six reported working in Dawson Creek (BC Association of Optometrists 2012 and College of Optometrists of BC 2012).

#### **1.2.6. Medical Facilities**

Northern Health is responsible for the delivery of health care in Northern B.C.

The closest major health facility to the Project dam site is the Fort St. John Hospital which is an acute care hospital and opened in 2012. The hospital has the following facilities: 55 acute care beds; Intensive Care Unit; maternity ward; two operating rooms; emergency room; endoscopy suite and an adjacent residential care building with 123 beds. The hospital was designed to meet demand of 84,000 people (currently 69,000).

The main medical care facilities in the Peace River Regional District in 2014 are summarized in Table 1.



**Table 1 –Northern Health Facilities by Selected Community in the PRRD, 2014**

Area	Facilities
Fort St. John	Fort St. John Hospital and Peace Villa Residential Care
	Fort St. John Health Unit
	Fort St. John Unattached Patient Clinic
	Heritage Manor II
	North Peace Care Centre
	Addiction Services at 9900, 100 Ave
Hudson's Hope	Hudson's Hope Health Centre
Chetwynd	Chetwynd Health Unit
	Chetwynd Hospital and Health Centre
Dawson Creek	Dawson Creek and District Hospital
	Dawson Creek Health Unit
	Rotary Manor (long-term care) & Southview Supportive Housing
Mackenzie	Mackenzie and District Hospital and Health Centre
Tumbler Ridge	Tumbler Ridge Community Health Centre
	Tumbler Ridge Community Health Unit
	Tumbler Ridge Mental Health and Addictions

Source: Northern Health (2014)

**1.2.7. First Nations Health Services**

A common theme for all First Nations on-reserve communities is that health and social services are limited in each, and extensive travel is required to access most basic services.

Transportation is a challenge for many people, especially the elderly and high school students.

Emergency response times are worrisome, as emergency assistance travels at some distance from Fort St. John, Fort Nelson, or Chetwynd (BC Hydro 2013a).

Doig River First Nation has a health department and care on-site with a part-time employee and visiting nurse and/or doctors weekly with regular clinics for diabetes management, HIV, and mammograms.

Halfway River First Nation has a health department and care on-site with one full-time employee and a visiting nurse and/or doctors weekly with regular clinics for diabetes management, HIV, mammograms, and specialty clinics throughout the year.

Prophet River First Nation has a health department and care on-site with one full-time employee and visiting nurse and/or doctors weekly with regular clinics for diabetes management, HIV, mammograms, and specialty clinics throughout the year.

West Moberly First Nations has a health department and care on-site with three full-time employees with a visiting nurse and/or doctors weekly with regular clinics for diabetes management, HIV, mammograms, and specialty clinics throughout the year and a healthy meals program (BC Hydro 2013b).

Duncan's First Nation has a Director responsible for overseeing health related initiatives such as home care visits, health screenings, tele-health and health library, diabetic testing, mental health and counselling and speciality clinics throughout the year (BC Hydro 2013c).

Horse Lake First Nation has a clinic and medical programs including, diabetes care, drop-in nurse and immunizations and other specialty programs. There is a dietician, community health representative and drug and alcohol councillor at the clinic full time (BC Hydro 2013d).

McLeod Lake Indian Band has a health centre and programs including on-reserve nursing visits, home care, social work and counseling, infant and family development and youth services and other speciality programs throughout the year. The Health Centre is the largest department for the Band with 14 employees (BC Hydro 2013e)

Saulteau First Nations has a community wellness centre with a health director, community health representative, wellness counsellor and community health and home care nurses. Wellness services include diabetes care, prenatal programs, children's oral health, foot clinic and other speciality programs throughout the year (BC Hydro 2013f).

### **1.2.8. Health Services and Outlook**

Northern Health uses population forecasts prepared for the Local Health Area by BC Stats for planning (Northern Health, Population Analyst 2012 pers. comm.). Northern Health has continued to invest in new health care infrastructure in the PRRD through the new Fort St. John Hospital (July 2012) and the expansion at the Rotary Manor with the addition of 71 new residential care beds. These investments address current and future demand in the PRRD. In particular, the hospital is designed to support a regional population of 84,000, which is forecasted by Northern Health to be reached in 2028 (Northern Health 2011d).

In May 2012, there were 59 external vacancies, including 21 nursing positions, 14 health science positions, and 10 community positions in the Northeast Health Area. In the PRRD, there continues to be shortages in Fort St. John for specialized nursing, rehabilitation, pharmacy, and ultrasound. Chetwynd is short of registered nurses, and Dawson Creek is actively seeking rehabilitation personnel. Currently, and moving forward, Northern Health continues to actively recruit for positions that are difficult to fill and to explore innovative approaches to address ongoing vacancies (Northern Health 2012b).

### **1.3. Project Related Change in Demand for Health Services**

New residents living in communities would require health services similar to what existing residents use. Upon arrival, they would seek out family doctors, family dentists, optometrist, other health care specialists and services, and daycare facilities. Accidents and emergencies would increase demand in acute and emergency care wards. Most of the new demand would be concentrated in the Fort St. John area. However, as Northern Health's integrated health care delivery model would channel demand to where there is available capacity, Dawson Creek would experience a rise in demand for some services as well.

Workers living in on-site workforce camps would not have the same need for services as residents would, since the workers would retain access to health services in their home communities during shift rotation. However, they would require periodic access to health services during their time in the PRRD. Emergency and acute care services would see the greatest increase in demand, but mental health, drug addiction, and diagnostic services would also be utilized (Nichols Applied Management 2007).

During the operations phase of the Project, demand on local services as a result of the Project would be negligible due to negligible population effects. Only 13 full time local positions would be required to operate the Project with another 12 positions located elsewhere (BC Hydro 2013a).