



MANITOBA – MINNESOTA TRANSMISSION PROJECT
Environmental Impact Statement

ASSESSMENT OF POTENTIAL ENVIRONMENTAL EFFECTS ON EMPLOYMENT AND ECONOMY

CHAPTER 14
SEPTEMBER 2015

TABLE OF CONTENTS

	Page
14 ASSESSMENT OF POTENTIAL ENVIRONMENTAL EFFECTS ON EMPLOYMENT AND ECONOMY	14-1
14.1 Introduction	14-1
14.1.1 Regulatory and Policy Setting	14-2
14.1.1.1 Primary Regulatory Guidance	14-2
14.1.1.2 Manitoba Hydro Corporate Policies and Programs	14-3
14.1.2 Engagement and Key Issues	14-4
14.1.2.1 First Nation and Metis Engagement.....	14-4
14.1.2.2 Public Engagement.....	14-4
14.2 Scope of Assessment	14-4
14.2.1 Spatial Boundaries.....	14-4
14.2.2 Temporal Boundaries	14-5
14.2.3 Learnings from Past Assessments	14-5
14.3 Methods	14-6
14.3.1 Existing Conditions Methods	14-6
14.3.1.1 Sources of Information	14-7
14.3.1.2 Desktop Analysis	14-8
14.3.1.3 Key Person Interviews.....	14-8
14.3.1.4 Addressing Uncertainty	14-9
14.3.2 Assessment Methods	14-10
14.3.2.1 Assessment Approach.....	14-10
14.3.2.2 Potential Environmental Effects, Effect Pathways and Measurable Parameters	14-11
14.3.2.3 Residual Environmental Effects Description Criteria	14-14
14.3.2.4 Significance Thresholds for Residual Environmental Effects	14-15
14.4 Existing Conditions for Employment and Economy	14-16
14.4.1 Overview of Baseline Conditions	14-16

14.4.2	Provincial Economy	14-17
14.4.3	Industry and Employers in the LAA.....	14-17
14.4.4	Educational Attainment and Field of Study	14-20
14.4.5	Aboriginal Educational Attainment and Field of Study	14-20
14.4.6	Labour Force.....	14-20
14.4.7	Aboriginal Labour Force	14-23
14.4.8	Labour Force by Industry	14-25
14.4.9	Aboriginal Labour Force by Industry	14-27
14.4.10	Construction Labour Force in Manitoba.....	14-28
14.4.11	Labour Incomes	14-32
14.4.12	Aboriginal Income and Earnings	14-33
14.4.13	Rural Municipal Government Revenues	14-33
14.4.14	Summary of Existing Conditions for Employment and Economy....	14-36
14.5	Assessment of Project Environmental Effects on Employment and Economy	14-36
14.5.1	Project Interactions with Employment and Economy	14-37
14.5.1.1	Mitigation for Employment and Economy	14-39
14.5.2	Assessment of Change in Local Employment and Labour	14-39
14.5.2.1	Pathways for Change in Local Employment and Labour	14-39
14.5.2.2	Characterization of Residual Environmental Effects for Change in Local Employment and Labour.....	14-39
14.5.3	Assessment of Change in Goods and Services	14-42
14.5.3.1	Pathways for Change in Goods and Services	14-42
14.5.3.2	Characterization of Residual Effects on Change in Goods and Services	14-42
14.5.4	Assessment of Change in Gross Domestic Product	14-43
14.5.4.1	Pathways for Change in Gross Domestic Product	14-43
14.5.4.2	Characterization of Residual Environmental Effects for Change in Gross Domestic Product.....	14-44
14.5.5	Assessment of Change in Government Revenue	14-44
14.5.5.1	Pathways for Change in Government Revenue	14-44
14.5.5.2	Characterization of Residual Environmental Effects for Change in Government Revenue.....	14-44

14.5.6	Residual Effects Characterization	14-45
14.5.6.1	Construction Phase	14-45
14.5.6.2	Operation and Maintenance Phase.....	14-46
14.5.6.3	Summary of Discussion	14-46
14.5.7	Summary of Environmental Effects on Employment and Economy	14-47
14.6	Assessment of Cumulative Environmental Effects on Employment and Economy	14-48
14.6.1	Identification of Project Effects Likely to Interact Cumulatively	14-48
14.6.2	Cumulative Effects Assessment for Change in Employment and Economy	14-52
14.6.2.1	Cumulative Effect Pathways for Change in Employment and Economy	14-52
14.6.2.2	Mitigation for Cumulative Effects for Change in Employment and Economy	14-53
14.6.2.3	Residual Cumulative Effects	14-53
14.6.2.4	Summary of Cumulative Effects	14-53
14.7	Determination of Significance	14-55
14.7.1	Significance of Environmental Effects from the Project	14-55
14.7.2	Significance of Cumulative Environmental Effects	14-55
14.7.3	Project Contribution to Cumulative Environmental Effects.....	14-55
14.7.4	Sensitivity of Prediction to Future Climate Change	14-56
14.8	Prediction Confidence	14-56
14.9	Follow-up and Monitoring.....	14-56
14.10	Summary	14-56
14.10.1	Summary of Commitments	14-57
14.11	References	14-58
14.11.1	Literature Cited	14-58
14.11.2	Personal Communication	14-70

LIST OF TABLES

	Page
Table 14-1	Potential Environmental Effects, Effect Pathways and Measurable Parameters for Employment and Economy 14-12
Table 14-2	Characterization of Residual Environmental Effects on Employment and Economy 14-14
Table 14-3	Industry Sectors and Employers in the LAA 14-17
Table 14-4	Labour Force Activity in the LAA in 2006 and 2011 14-21
Table 14-5	Aboriginal Labour Force in LAA in 2006 and 2011 14-23
Table 14-6	Percent Labour Force by Industry in the LAA 14-25
Table 14-7	Aboriginal Percent Labour Force by Industry in the LAA 14-27
Table 14-8	Trades, Transport and Equipment Labour Availability in each RM and the LAA 14-30
Table 14-9	Trades, Transport and Equipment Aboriginal Labour Availability in each RM and the LAA 14-31
Table 14-10	Rural Municipality Government Revenues Based on a 3-Year Average 2010–2012 14-34
Table 14-11	Rural Municipality Government Operational Expenditures (\$) Based on a 3-Year Average 2010–2012 14-35
Table 14-12	Potential Project-Environment Interactions and Effects on Employment and Economy 14-37
Table 14-13	Estimated Construction Employment in Manitoba and Canada 14-40
Table 14-14	Estimated Construction Spending, Labour Income and GDP Contribution from the Project 14-43
Table 14-15	Summary of Residual Environmental Effects on Employment and Economy 14-47
Table 14-16	Present and Reasonably Foreseeable Projects in the RAA, Workforce Size and Project Life 14-49
Table 14-17	Potential Cumulative Environmental Effects on Employment and Economy . 14-51
Table 14-18	Summary of Cumulative Environmental Effects on Employment and Economy 14-54

LIST OF FIGURES

	Page
Figure 14-1 Pathway Diagram	14-13

LIST OF MAPS

Map 14-1	Employment and Economy Assessment Area
Map 14-2	Employment and Economy Assessment Area Glenboro South Station

ABBREVIATIONS

CEAA	<i>Canadian Environmental Assessment Act, 2012</i>
CDEM	Western Economic Diversification Canada
COW	City of Winnipeg
CT	census tract
EIS	environmental impact statement
GDP	gross domestic product
GIL	Grants-in-Lieu
GRR	global response rate
GST	goods and services tax
ha	hectare
KPI	key person interview
LAA	local assessment area
MB	Manitoba
MBSEAD	Manitoba Bureau of Statistics Economic Analysis Department
MBSIOM	Manitoba Bureau of Statistics Input/Output Model
MCR	Manitoba Capital Region
MMTP	Manitoba–Minnesota Transmission Project
NEB	National Energy Board
NHS	National Household Survey
PDA	Project development area
PEP	public engagement process
PST	provincial sales tax
PTH	Provincial Trunk Highway
PUB	Public Utilities Board
PY	person-years
RAA	regional assessment area
RM	rural municipality



ROW	Right-of-way
SLTC	Southern Loop Transmission Corridor
SVTC	St. Vital Transmission Complex
VC	valued component
WCA	Winnipeg Construction Association

GLOSSARY OF TECHNICAL TERMS

Basic industries	Basic industries include agriculture and resource-based industries, construction, manufacturing, educational services, health care and social services.
Census agglomerations	Area consisting of one or more neighbouring municipalities situated around a core. A census agglomeration must have a core population of at least 10,000.
Census metropolitan areas	Area consisting of one or more neighbouring municipalities situated around a core. A census metropolitan area must have a total population of at least 100,000 of which 50,000 or more live in the core (<i>e.g.</i> , City of Winnipeg).
Census subdivision	An area that is a municipality or an area that is deemed to be equivalent to a municipality for statistical reporting purposes (<i>e.g.</i> , as an Indian Reserve). Municipal status is defined by laws in effect in each province and territory in Canada (<i>e.g.</i> , RM of Headingley) .
Census tract	An area that is small and relatively stable, usually having a population between 2,500 and 8,000 persons. They are located in census metropolitan areas and in census agglomerations that have a core population of 50,000 or more.
Educational attainment	Education by highest certificate, diploma or degree. Educational attainment categories are no certificate, diploma or degree; high school diploma or equivalent; apprenticeship or trades certificate or diploma; college, CEGEP or other non-university certificate or diploma; university certificate or diploma below bachelor level; and university certificate, diploma, or degree at bachelor level or above.
Employment rate	Percentage of people employed aged 15 years and over.
Full-time job equivalent	The ratio of the total number of paid hours (part time, full time, contract) to the number of working hours in that period. The ratio units are FTE units or equivalent employees working full-time (<i>i.e.</i> , one FTE is equivalent to one employee working full-time).

Gross domestic product	Aggregate measure of production equal to the sum of the gross value added of all domestic production (plus any taxes and minus any subsidies, on products not included in the value of their outputs).
Labour force	Persons employed and unemployed aged 15 years and over.
Non-basic industries	Non-basic industries include wholesale trade, retail trade, finance, real estate, business services and other industries.
Participation rate	Percentage of people participating in the labour force aged 15 and over, excluding institutional residents.
Person-years	A person-year is one person being fully employed for one year.
Unemployment rate	Percentage of people not currently employed but seeking employment aged 15 years and over.

14 Assessment of Potential Environmental Effects on Employment and Economy

14.1 Introduction

Manitoba Hydro is proposing construction of the Manitoba–Minnesota Transmission Project (MMTP, or the Project), which involves the construction of a 500 kilovolt (kV) AC transmission line in southeastern Manitoba. The transmission line would originate at the Dorsey Converter Station northwest of Winnipeg, continue south around Winnipeg and within the Existing Transmission Corridor (Existing Corridor), the Southern Loop Transmission Corridor (SLTC) and the Riel–Vivian Transmission Corridor (RVTC), to just east of Provincial Trunk Highway (PTH) 12. The transmission line then continues southward on a New Right-of-way (ROW) across the rural municipalities (RMs) of Springfield, Tache, Ste. Anne, La Broquerie, Stuartburn and Piney to the Manitoba–Minnesota border crossing south of the community of Piney. The Project also includes the construction of terminal equipment at the Dorsey Converter Station, electrical upgrades within the Dorsey and Riel converter stations, and modifications at the Glenboro South Station requiring realignment of transmission lines entering the station.

Based on the above description, the assessment of the Project is divided into three components:

- transmission line construction in the Existing Corridor, extending from Dorsey Converter Station to just east of PTH 12;
- transmission line construction in a New ROW, extending south from the Anola area to the border by Piney; and
- station upgrades—at Glenboro South Station, Dorsey Converter Station and Riel Converter Station—and transmission line realignment work at Glenboro South Station.

Employment and economy is a valued component (VC) because of its importance to local and provincial residents, business owners, communities and governments. The public has expressed interest in employment and business opportunities related to the Project and past projects through the public engagement process (PEP) (*i.e.*, open houses, stakeholder meetings).

Project construction will generate employment opportunities for the local and regional labour force. Direct employment opportunities will include management and supervisory roles, inspection services, equipment operators, health and safety, trades, and semi-skilled and unskilled labour. Project spending during construction will also generate indirect and induced employment opportunities in Manitoba. Indirect employment is generated within industries supplying intermediate components such as raw materials, while induced employment is generated by household spending (*e.g.*, consumer products, restaurants) from wages earned by direct and indirect workers.

Project spending will also generate subcontracting opportunities and the demand for goods and services from local and regional businesses. Such opportunities include the provision of accommodations, parts supply and concrete foundations materials.

Project spending and employment will contribute to the regional, provincial, and national economies, including adding value to the gross domestic product (GDP). It will also contribute to federal, provincial, and local government revenue through taxation on income and on goods and services procured for the Project.

Key issues associated with employment and economy relative to the Project include local employment opportunities; effects on the provincial economy; and tax revenues generated. Other issues include Project costs and export revenue. To capture these issues, the potential environmental effects for employment and economy are:

- change in local employment and labour income
- change in goods and services (commercial sectors)
- change in GDP
- change in government revenue

Larger communities outside the RAA, such as Winnipeg, Steinbach and Brandon, may also experience economic and employment effects due to their large population sizes and proximity to the RAA. These larger centers will also provide services (e.g., accommodations and restaurants), supplies and labour force for the Project.

This chapter presents baseline conditions for employment and economy, and assesses the environmental effects of Project activities on employment and economy from construction, operation, and maintenance; it also addresses cumulative effects.

14.1.1 Regulatory and Policy Setting

14.1.1.1 Primary Regulatory Guidance

A list of the various regulatory requirements that were considered in developing this environmental impact statement (EIS) can be found in the project description (Chapter 2, Section 2.2). Particular consideration was given to the following federal and provincial legislation and guidelines in the preparation of this environmental assessment:

- the Project Final Scoping Document, issued on June 24 2015 by Manitoba Conservation and Water Stewardship's Environmental Approvals Branch, which represents the guidelines for this EIS;

- the relevant filing requirements under the National Energy Board Act (R.S.C., 1985, c. N-7), and guidance for environmental and socio-economic elements contained in the National Energy Board (NEB) Electricity Filing Manual, Chapter 6; and
- the Canadian Environmental Assessment Act, 2012 (S.C. 2012, c. 19, s. 52) and its applicable regulations and guidelines.

14.1.1.1.1 Federal

No other federal legislation, policy or agreements related to acquiring permits are applicable in the assessment of effects for employment and economy.

14.1.1.1.2 Provincial

Sustainable Development Policy

The Sustainable Development Act (S270) requirement for Manitoba Hydro to prepare and adopt a corporate sustainable development code of practice. Manitoba Hydro has adopted a sustainable development policy and 13 guiding principles that influence corporate decisions, actions and day-to-day operations to achieve environmentally sound and sustainable economic development (Manitoba Hydro 1993). Manitoba Hydro applies the principles of sustainable development in all aspects of its operations. Through corporate decisions and actions to provide electrical services, Manitoba Hydro endeavors to meet the needs of the present without compromising the ability of future generations to meet their needs (Manitoba Hydro n.d.1).

No other provincial legislation, policy or agreements related to acquiring permits are applicable in the assessment of environmental effects for employment and economy.

14.1.1.1.3 Municipal

No other municipal policies or by-laws related to acquiring permits are applicable in the assessment of environmental effects for employment and economy.

14.1.1.2 Manitoba Hydro Corporate Policies and Programs

Transmission Line Construction Agreement

Clearing and construction of the transmission lines will be subject to a collective agreement called the Transmission Line Construction Agreement. This agreement sets out minimum wages to be paid to workers and denotes minimum standards to be adhered to related to working conditions. Workers other than supervisory personnel will be required to become members of either the IBEW or IUOE unions for the duration of the work. Hiring preferences will be set out in the construction specifications/tender documents.

The construction specifications/tender documents will set out hiring preferences for the Project.

14.1.2 Engagement and Key Issues

The public and First Nation and Metis had an opportunity to participate in events such as open houses, meetings, workshops and provide feedback on the Project website.

14.1.2.1 First Nation and Metis Engagement

During the First Nation and Metis engagement process, Manitoba Hydro received comments about employment and economy from First Nations. A summary of key feedback can be found in Chapter 4: First Nation and Metis Engagement. Interests and concerns with respect to potential Project effects on employment and economy included:

- Project employment opportunities, including training and education opportunities related to the Project
- economic opportunities for business and supply contracts
- economic opportunities for communities
- building capacity for First Nation businesses and employees

14.1.2.2 Public Engagement

During the three rounds of PEP, Manitoba Hydro received comments about employment and economy. Identified issues associated with the Project related to employment and economy include:

- local training, employment and contracting opportunities
- effects on the economy and local economic growth
- revenue generated for the province

Further information about the PEP is outlined in Chapter 3: Public Engagement. Information is also available in the supporting public engagement summary reports and appendices.

14.2 Scope of Assessment

14.2.1 Spatial Boundaries

The following spatial boundaries are used to assess residual and cumulative environmental effects of the Project on employment and economy (see Map 14-1 – Employment and Economy Assessment Area and Map 14-2 – Employment and Economy Assessment Area Glenboro South Station):

- **Project development area (PDA):** The PDA encompasses the Project footprint and is the anticipated area of physical disturbance associated with the construction and operation and maintenance of the Project.

- **Local assessment area (LAA):** includes the PDA and boundaries of all RMs traversed by the PDA. The LAA for the transmission line and station components covers an area that encompasses the area where employment and economic activities are likely to be most prevalent. The LAA originates at the Dorsey Converter Station, located northwest of the City of Winnipeg and proceeds south around the city. From southeast Winnipeg, the LAA extends east and southeast to a crossing location on the Manitoba-Minnesota border south of Piney, MB. The City of Winnipeg, Steinbach and Brandon are also providers of labour, services and materials to the Project.
- **Regional assessment area (RAA):** as with the LAA, the RAA includes the PDA and boundaries of all RMs traversed by the PDA. From north to south RMs in the RAA are Rosser, Headingley, Macdonald, Ritchot, Springfield, Tache, Ste. Anne, La Broquerie, Stuartburn, Piney and South Cypress (for the Glenboro South Station component only).
- **Province of Manitoba:** The Province of Manitoba is an administrative boundary relevant to the employment and economy assessment. Some information (*i.e.*, information generated by the input-output analysis) is available only at the provincial scale (*i.e.*, contribution to provincial revenue and GDP).

14.2.2 Temporal Boundaries

The assessment addresses potential effects during Project construction, operation and maintenance phases. During construction, operation and maintenance, employment and economy will be affected by the presence of work crews and through direct economic effects related to purchases of goods and services, labour income and federal and provincial tax generation.

Subject to regulatory approval, construction of the Project transmission line (designated D604I) will span the period from Q3 2017 to Q1 2020. Modifications to the Dorsey Converter Station, Riel Converter Station and Glenboro South Station will span the period between Q3 2017 and Q4 2019. D604I is anticipated to be in service in 2020 and have a service life of at least 100 years.

14.2.3 Learnings from Past Assessments

Manitoba Hydro's previous experience in transmission line assessments and monitoring programs has shaped the assessment for employment and economy. Previous documents were reviewed with respect to approach and scope for assessing employment and economy. This review included the Clean Environment Commission's Hearing Report on the Bipole III Transmission Project (Bipole III) and construction monitoring reports for the Wuskwatim Generating Station Project, Wuskwatim Transmission Project and Keeyask Infrastructure Project.

An economic assessment was completed for Bipole III, focusing on direct, indirect and induced effects related to employment, labour income, GDP and tax revenue. A similar economic analysis was prepared for Manitoba Hydro to assess these effects on employment and economy.

Construction-related economic monitoring was implemented for Wuskatim and Keeyask infrastructure projects. Construction economic monitoring was completed for 2012 and 2013 on direct economic effects related to employment, purchases, labour income and federal and provincial taxes.

A review of the employment and economy sections of other transmission line projects and linear developments was undertaken to validate selected effects, methods, enhancement measures, and mitigation for the assessment of employment and economy in this EIS. In general, transmission line and linear developments are beneficial due to employment and contracting opportunities available to local communities, contribution to government tax revenue, and creation of GDP (BCTC 2008; Rescan 2010; PRGT 2014). Economic benefits of the Project are addressed in Section 14.5.2.

The ability of the local labour market to satisfy labour requirements for transmission line and other linear development projects is varied. With projects occurring near an urban area, the local labour force is able to satisfy labour needs (BCTC 2008), but projects occurring in more remote areas rely on labour brought in from outside (Rescan 2010; PRGT 2014). However, there is limited potential for competition for skilled construction workers given the relatively small workforce sizes, and the specialized skill sets (PRGT 2014). Project effects on the labour force are addressed in Section 14.5.2.

14.3 Methods

14.3.1 Existing Conditions Methods

Information on existing conditions for employment and economy was obtained through primary and secondary research. Secondary research included a desktop review of statistical sources, previous studies, research findings, other environmental assessments, and a review of traditional knowledge, where applicable. Primary data were collected from records of public engagement activities undertaken as part of the PEP for the Project (*i.e.*, open houses, stakeholder meetings), KPIs with identified stakeholders, and data requests of government and stakeholder groups and organizations as required. The following sections present additional information on the sources used to characterize baseline conditions and how the information was interpreted and analyzed.

For more detailed information regarding methods or findings, see the Socio-Economic Technical Data Report - Socio-Economic and Land Use.

14.3.1.1 Sources of Information

Existing conditions information for employment and economy was obtained from published reports, statistical information sources, website resources, data requests sent to key informants, and other qualitative and quantitative sources, including:

- published reports from government agencies related to the economy (e.g., economic outlooks/forecasts)
 - BuildForce Canada 2015
- publicly available databases and websites related to demographics, employment and municipal finance
 - Statistics Canada 2006 (RMs, census subdivisions, census tracts)
 - Statistics Canada 2011 (RMs, census subdivisions, census tracts)
 - National Household Survey (NHS) 2011
 - Statistics Canada Aboriginal Population Profile 2006
 - Statistics Canada Aboriginal Population Profile 2011
 - NHS Aboriginal Population Profile 2011
 - Province of Manitoba Statistical Information
 - Manitoba Bureau of Statistics Regions for the Province of Manitoba
 - Manitoba Capital Region (MCR) Regional and Community Profiles
 - Western Economic Diversification Canada (CDEM)
 - Manitoba Conservation and Water Stewardship, Regional Offices
 - RM and community websites
- previously completed environmental impact assessments
 - Manitoba Hydro. 2011. Bipole III Reliability Improvement Project Environmental Impact Statement. Winnipeg, MB
 - Manitoba Hydro. 2014. St. Vital Transmission Complex Environmental Assessment. Winnipeg, MB
- Manitoba Hydro workforce estimates and schedules for construction, operation and maintenance phases
- information collected during the PEP and KPIs
- information collected during the First Nation and Metis engagement process, including Aboriginal Traditional Knowledge Studies

Statistics Canada and NHS data included information on labour force characteristics, employment and economy, educational attainment, income and earnings. Information was collected from the Province of Manitoba, Western Economic Diversification Canada, MCR, RM profiles, community profile, personal communications and KPIs on the economy, GDP and key industry sectors present in the RAA.

14.3.1.2 Desktop Analysis

Desktop analysis using online primary and secondary sources were used to describe the employment and economy existing conditions. Census subdivision and census tract boundaries allowed for the assessment of areas in the RAA. Information was collected from the 2006 and 2011 census and presented based on RM, Town, Village and Census Tract boundaries. Statistics Canada 2006 and NHS 2011 data were used to calculate labour force characteristics, labour force activity by industry and occupation and educational attainment levels and provide trend analysis in the RAA and the Aboriginal population in the RAA. Summary tables with income and earnings were provided for the general and Aboriginal populations in the province, RMs, Town of Ste. Anne, Village of Glenboro, and the City of Winnipeg Census Tracts within the RAA to compare and contrast between locations. Provincial data were used to describe the provincial economy and municipal government revenues. RM data, the Western Economic Diversification Centre, Town of Ste. Anne, Village of Glenboro and Statistics Canada data were used to describe the major sectors and employers in the RAA.

14.3.1.3 Key Person Interviews

Key person interviews were conducted with representatives identified from various groups involved in agriculture, environment, recreation, business and industry, resource use, health and emergency services to supplement secondary baseline information. Interview guides were developed to gather information from each of these organizations (see Socio-Economic Technical Data Report - Socio-Economic and Land Use). KPIs were undertaken with the following organizations to supplement the description of employment and economic conditions:

- Winnipeg Construction Association – construction labour force supply, current and future projections, labour force mobility, current and approved projects construction labour is/or will be involved in, and the ongoing change in the oil industry that may or may not affect Manitoba.
- B. Vermette Backhoe Service Ltd. – job creation, positive effects on the economy resulting from the Project.
- Hotels and motels in the RAA – Motel 6 Headingley, Ile des Chenes Motor Hotel, Hotel La Broquerie, Richer Motor Hotel, Headingley Motor Hotel, Ste. Anne Hotel, Carberry Motor Inn.

14.3.1.4 Addressing Uncertainty

Data uncertainties were addressed by using multiple sources of data. For example, Statistics Canada or local websites were used, and then KPIs or data requests were used to verify data and fill in data gaps.

Limitations to the use of Census data are as follows:

- The long form for reporting was voluntary for the 2011 census and NHS survey, which affected the global response rate (GRR). Data were suppressed if the GRR was higher than 50% for data quality and confidentiality reasons. This also affected Aboriginal NHS data, and in some cases was not possible to complete some analysis.
- The Aboriginal Census Data are limited and may not be available in RMs, Towns, Villages or Census Tracts. Possible reasons why data are not available include the following:
 - the area does not meet the threshold for 250 or more Aboriginal identity population;
 - the area has been suppressed for data quality or confidentiality reasons; or
 - the area is comprised of or contains incompletely enumerated Indian reserves or Indian settlements.
- City of Winnipeg census tract boundaries changed between the 2006 and 2011 census, which can affect trend analysis comparisons between the two census years.
- Census data limitations affected data analysis and trend analysis when a complete data set was not available.
- The 2011 Census will not necessarily reflect conditions when this EIS is submitted since the census is several years old.
- Due to data suppression and rounding, some totals and percentages may not add up to 100.
- A 0% unemployment rate in communities may be due to lack of data in the 2011 NHS profiles.
- Given the small population bases within the RAA, ranging from 645 people in the Village of Glenboro to 14,069 in the RM of Springfield in 2011, there is a general limitation related to percentage-based comparisons.
- The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress. Data presented prior to January 1, 2015 were presented separately for the RM of South Cypress and the Village of Glenboro.

In some instances, a conservative approach was undertaken to account for uncertainty in the effects assessment because of data limitations. Conservative assumptions were made with respect to the assessing the effects on employment from the total workforce engaged in Project construction activities.

14.3.2 Assessment Methods

The overall effects methods are presented in Chapter 7: Assessment Methods. Methods used to carry out the assessment for employment and economy are presented in this section. They include:

- assessment approach
- potential effects, effect pathways and measurable parameters
- effects description criteria for employment and economy
- significance thresholds for residual effects

14.3.2.1 Assessment Approach

Potential effects on employment and economy are assessed based on Project employment, expenditure information and labour supply. Input gathered from stakeholder interviews and meetings were used in the assessment of effects.

Economic Assessment

Economic effects of construction, operation and maintenance are estimated using the Manitoba Bureau of Statistics Input-Output Model (MBSIOM). The MBSIOM is based on statistical information on the stock of goods and services in Manitoba. Most goods and services are comprised of various commodity inputs. For example, a transmission project requires various goods (e.g., structural steel for towers, foundation materials and conductor wire) and services (e.g., engineering and construction labour). New economic activity, such as that introduced by the Project, can result in an economic “shock” as spending on suppliers (direct effects) yields indirect effects, when such companies in turn purchase goods and services from their suppliers. Induced economic activity also occurs, resulting from consumer spending by employees of the Project, and employees of its direct and indirect suppliers.

The model estimates direct, indirect and induced economic effects of the Project on the economy of Manitoba and Canada, but does not estimate such effects at a local or regional scale (MBSEAD 2015). The economic analysis provides an estimate of the total employment effects of the Project on the economies of Manitoba, the rest of Canada (excluding Manitoba) and all of Canada.

The economic analysis uses the following data:

- number of person-years (PY) of employment expressed in full-time job equivalents generated by the Project;
- income earned by workers as a result of the Project (i.e., sum of wages, supplementary labour income, net income of unincorporated business);

- the total value of goods and services produced in the economy and represents the additional value of production generated by the Project after removing the costs of intermediate inputs; and
- tax revenue calculated for three levels of government – federal, provincial and local.

The cumulative employment, labour income, GDP and tax revenue generated by the Project is presented over the entire construction period. Operation and maintenance phase effects are based on the annual effects in a typical year once the Project is operational.

Statistics Canada Data

Statistical and numerical data were summarized from secondary sources (e.g., Statistics Canada and Province of Manitoba Revenue and Expenditures Statistics). Statistics Canada data were summarized by percentages for the RAA to compare data between the province, RMs, Town of Ste. Anne, Village of Glenboro and census tracts for information such as educational attainment, field of study and labour force.

Statistical information were also used to estimate the number of available workforce in trade, transport and equipment operation to give an indication of local and regional supply of workers with appropriate skills for construction employment. Labour supply was determined using the 2011 Census participating workforce in trades, transportation and equipment operators number and multiplying by the 2011 unemployment rate to yield the available construction labour force related to trade, transport and equipment operation.

14.3.2.2 Potential Environmental Effects, Effect Pathways and Measurable Parameters

The potential environmental effects, effect pathways and measureable parameters used in the assessment of effects on employment and economy and the rationale for their selection are provided in Table 14-1.

Figure 14-1 illustrates how the Project directly and indirectly affects employment and economy. Direct Project employment will be generated through the hiring of LAA residents by either Manitoba Hydro or its contractors. Other direct employment will be generated by providers of equipment used in product construction, while indirect employment will be generated within industries supplying intermediate components. Induced employment is created by the household spending of the direct and indirect workforce.

Project construction will increase demand for goods and services and will generate direct and indirect opportunities for local and regional businesses. Examples of local goods and services provision include the purchase of food (e.g., from grocers and restaurants), fuel and materials. In addition to Project construction contracts, there is potential for sub-contracting opportunities for local and regional businesses.

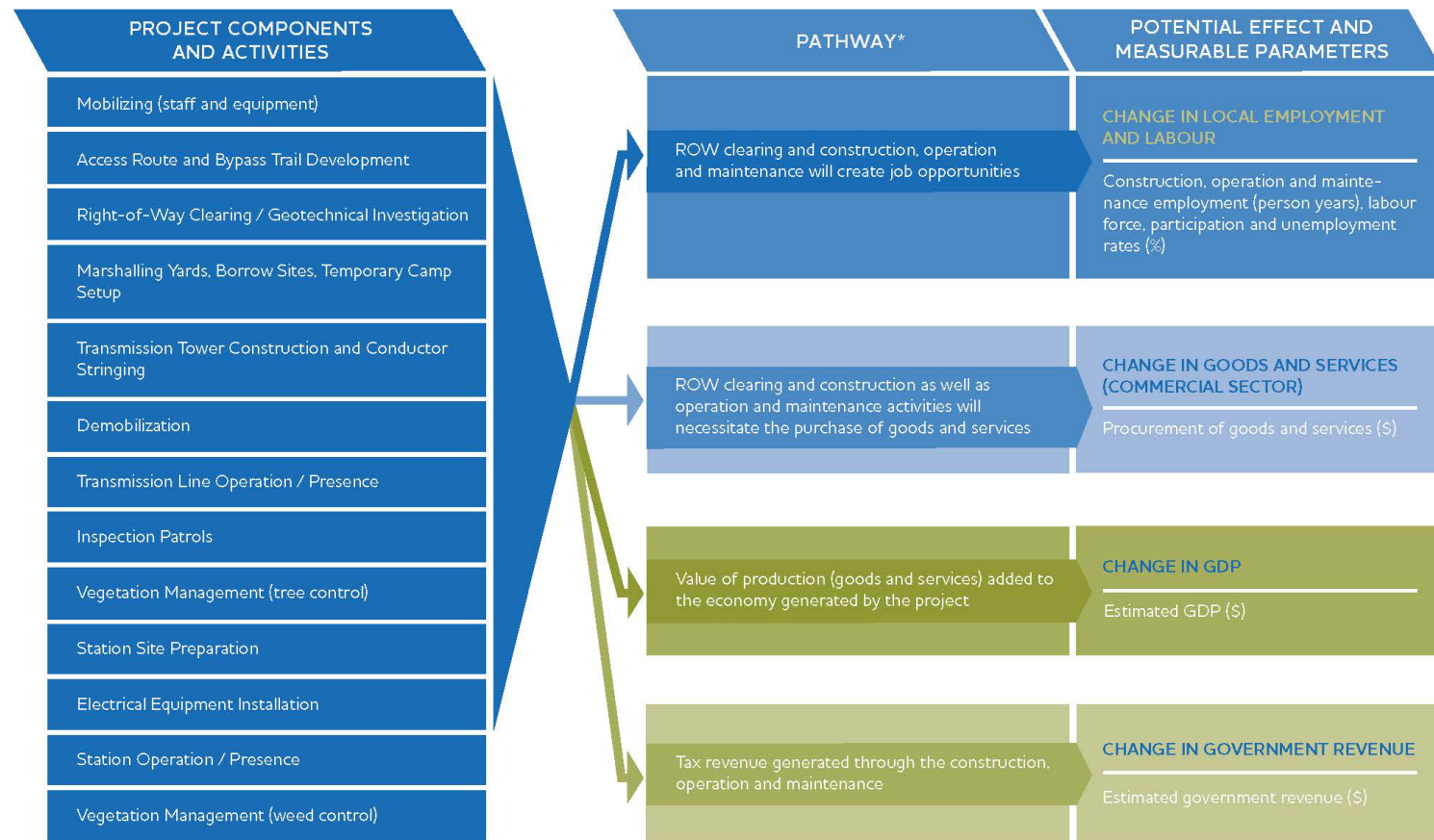
Table 14-1 Potential Environmental Effects, Effect Pathways and Measurable Parameters for Employment and Economy

Potential Environmental Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement	Notes or Rationale for Selection of the Measureable Parameter
Change in local employment and labour	ROW clearing and construction, operation and maintenance will create job opportunities	Construction, operation and maintenance employment (person-years), labour force, participation and unemployment rates (%)	The Project will provide job opportunities. Through procurement activities, the Project will be a source of opportunities for local business, but such businesses could be affected by change in cost or availability of labour, goods and services. Finally, the Project will add to the economy and generate income taxes and consumption taxes.
Change in goods and services (commercial sectors)	ROW clearing and construction as well as operation and maintenance activities will necessitate the purchase of goods and services	Procurement of goods and services (\$)	
Change in GDP	Value of production (goods and services) added to the economy generated by the Project	Estimated GDP (\$)	
Change in government revenue	Tax revenue generated through the construction, operation and maintenance	Estimated government revenue (\$)	

Project expenditures during construction will contribute to regional, provincial and national economies. The contribution of the Project to the provincial and national economy is measured by additional GDP.

The Project will generate federal, provincial and local government revenue during construction, operation and maintenance. Revenue includes federal and provincial consumption taxes (e.g., goods and services tax [GST] and provincial sales tax [PST] payable by Manitoba Hydro). Federal and provincial income taxes will be payable by workers and on taxable income earned by suppliers (direct and indirect) and companies whose earnings are attributed to household spending (i.e., induced income).

Employment and Economy



* A cause-and-effect relationship linking a project activity or component to a potential project effect

Figure 14-1 Pathway Diagram

14.3.2.3 Residual Environmental Effects Description Criteria

Residual environmental effects are socio-economic effects that remain after the application of mitigation measures. Characterization of residual effects is based on criteria in Table 14-2. All criteria except context are relevant for both positive and adverse economic effects. Context is not relevant for positive effects because, regardless of current condition, positive economic effects will result in improvement of economic conditions.

Table 14-2 Characterization of Residual Environmental Effects on Employment and Economy

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Direction	The trend of the residual effect	<p>Positive – an increase in local employment, goods and services, economic activity and government revenue relative to the baseline</p> <p>Adverse – a decrease in local employment, goods and services, economic activity and government revenue relative to the baseline</p> <p>Neutral – no net change in local employment, goods and services, economic activity and government revenue relative to the baseline</p>
Magnitude	The amount of change in measurable parameters for employment and economy relative to existing conditions	<p>Negligible – no measurable change in local employment, goods and services, economic activity and government revenue from baseline conditions</p> <p>Low – a small measurable change in local employment, goods and services, economic activity and government revenue</p> <p>Moderate – a measureable change that is unlikely to pose a substantial risk or benefit to the VC or to represent a management challenge</p> <p>High – a measurable change on a scale that is substantial compared to current economic conditions and if negative, represent a management challenge</p>
Geographic Extent	The geographic area in which an environmental effect occurs	<p>PDA – residual effects are restricted to the PDA</p> <p>LAA – residual effects extend into the LAA</p> <p>RAA – residual effects interact with those of other projects in the RAA. Since Project effects on employment and economy are affected by those of other projects, the LAA and RAA are the same for this VC.</p>

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Duration	The period of time required until the effect can no longer be measured or otherwise perceived	Short-term – residual effect restricted to construction phase Medium-term – residual effect extends longer than the construction phase Permanent – residual effect extends for the lifetime of the Project or longer
Frequency	Identifies when the residual effect occurs and how often during the Project or in a specific phase	Single event – residual effect occurs once Multiple irregular event (no set schedule) – effect occurs multiple times at irregular intervals Multiple regular event – residual effect occurs multiple times at regular intervals Continuous – residual effect occurs continuously
Reversibility	Pertains to whether a measurable parameter or the VC can return to its existing condition after the Project activity ceases	Reversible – the residual effect is likely to be reversed after activity completion and reclamation Irreversible – the residual effect is unlikely to be reversed
Socio-economic Context	Existing condition and trends in the area where environmental effects occur	Low resilience – system is unable to accommodate change Moderate resilience – system is able to accommodate some change High resilience – system is able to accommodate change

14.3.2.4 Significance Thresholds for Residual Environmental Effects

An environmental effect on employment and economy is considered significant if the environmental effects of the Project result in:

- an adverse effect that is distinguishable from normal variability and (1) causes stress on the local labour supply market in the RAA, or (2) the demand for goods and services exceeds available supply and cannot be managed with current or anticipated programs, policies or mitigation measures.

In accordance with regulatory guidance (*i.e.*, section 31, CEAA, 2012), a significance determination is made for adverse effects only. Some economic effects can be both adverse and positive depending on the economic interests being affected. For example, low unemployment rates could drive up wage rates because of limited labour supply and adversely affect some businesses. However, higher wage rates will increase average household income and potentially increase the amount of household consumption.

14.4 Existing Conditions for Employment and Economy

This section presents information about the existing conditions for employment and economy. This includes information on the Provincial economy, major industries in the RAA, educational attainment, labour force, labour incomes, municipal government revenues, and a summary of existing conditions.

For more detailed information about the data collected, see the Socio-Economic Technical Data Report - Socio-Economic and Land Use.

14.4.1 Overview of Baseline Conditions

The LAA and RAA, which includes the RMs that the ROW passes through, as well as two southern census tracts within the City of Winnipeg define the Project area for employment and economy. The Village of Glenboro is located north of Glenboro South Station. Communities are discussed alphabetically by RM, Town, Village and City throughout this section.

While the provincial economy is quite diversified in manufacturing, agriculture and resource-based industries, the main economy of the RAA is agriculture and agricultural-related businesses. However, much of the labour force is employed in trade, transportation and equipment operation and in health care and social services. The workforce employed in trades, transportation and equipment operation and availability of the workforce is an indicator of where the labour force may be sourced from for clearing activities. The total labour force in the LAA was 40,655 in 2006 and increased 5.5% to 42,910 in 2011. Within the LAA, unemployment rates varied between RMs and communities (Table 14-4). Unemployment rates ranged from a low of 2.5% in the Town of Ste. Anne to a high of 7.7% in the Village of Glenboro. Based on the 2011 census figures, participating workforce numbers and unemployment rates yields a workforce in trades, transport and equipment of approximately 211 persons, of which 25 are Aboriginal in the RAA and 5,895 in Manitoba of which 1,935 are Aboriginal.

In the RAA, labour income tended to correlate with educational levels, although this correlation was not observed with the Aboriginal population in the RAA. Labour incomes for the general and Aboriginal population were higher than Provincial incomes, and there is a higher reliance on self-employment.

The subsections below provide an overview of the existing conditions related to employment and economy. More detailed existing conditions information can be found in the Socio-Economic Technical Data Report - Socio-Economic and Land Use.

14.4.2 Provincial Economy

Manitoba has a diversified \$55 billion economy (2012). The largest sector in 2012 was manufacturing, which accounted for 10% of the province's GDP, closely followed by primary industries (e.g., agriculture and resourced-based industries such as mining and forestry), which accounted for approximately 9%. Between 2002 and 2012, Manitoba's manufacturing sector grew by 32%. It was led in shipments by food processing, primary metals and transportation equipment. Manufacturing shipments for Manitoba in 2012 totaled \$15.6 billion (Province of Manitoba 2014a). The mining and petroleum industries totalled \$3.1 billion in production in 2012, up from \$1.9 billion in 2009.

The major industries and major manufactured goods exports in the province are aerospace equipment, processed foods, electronics, chemicals and transportation equipment (urban and intercity buses) (Province of Manitoba 2014a). The major primary industries are mining (i.e., base metals such as nickel, copper and zinc, gold, oil) and forestry (i.e., paper products). Agricultural commodities consisted of canola, wheat, oats, barley, flaxseed, hogs, cattle, dairy products, poultry and eggs (Province of Manitoba 2014a).

14.4.3 Industry and Employers in the LAA

Industry sectors and major employers in the LAA and outside the City of Winnipeg are presented in Table 14-3. Agriculture and agriculture-related business also dominate the economy of the LAA. Although the number of farms and farm operators in Manitoba decreased between 2006 and 2011 (by 16.7% and 16.2%, respectively), average farm size increased by 13.4% to a total of 459 ha (1135 acres) in 2011 from 405 ha (1001 acres) in 2006 (Statistics Canada 2015a; Statistics Canada 2015b). Within the LAA, there are 1,456 farms for 9% of Manitoba's farms (Statistics 2011; Statistics Canada 2015a, 2015b).

Table 14-3 Industry Sectors and Employers in the LAA

Rural Municipality	Sectors	Employers ¹
RM of Glenboro - South Cypress ²	Agriculture (wheat, barley, oats, flax, canola, potatoes); livestock (beef, dairy, sheep) Sales and service businesses (farm machinery), local government, commercial business, financial services, tourism	Glenboro Building Centre, Cypress Planning District, Glenboro Golf and Country Club, Crop Production Services, MASC Crop Insurance, Royal Bank of Canada, Westoba Credit Union, Spirit Sands and Kiche Manitou campground and beach (Spruce Woods Provincial Park)
RM of Headingley	Landscaping centres, market gardens, service industries, tourism	Shelmerdine Nurseries, Tailleu Construction, The Gates on Roblin, T & T Seeds, Flying J Husky, Breezy Bend Country Club, John Blumberg Golf Course and Softball complex

Rural Municipality	Sectors	Employers ¹
RM of La Broquerie	Agriculture (pork production, beef, poultry and dairy farms); commercial business, finance; transportation, tourism	Hylife, JV Hog Farms, Deer Meadow Tree Farm, La Broquerie Lumber RONA, La Verendrye Golf, Meadowland Research Farm (Porcherie Gauthier Ltee), Tetrault Transport
RM of Macdonald	Agriculture, farm equipment, wood processing, building supply products, transport	Enns Brothers (farm equipment); McMunn and Yates Distribution Centre, Perimeter Lumber, Sawyer Wood Products, Wildwood Forest Products, Superior Trusses (forest products); Kleysen Transport, Starbuck Co-op, Brandt Tractor, J&D Tractor
RM of Piney	Agriculture and forestry, commercial business, finance, tourism	Caisse Financial Group, D & P Backhoe & Excavating Service, Piney Fine Natural Spring Water, Prevost Forest Products, Raw Forest Products, FPM Peat Moss CO. Ltd., Silver Birch Resort Outfitting Limited
RM of Ritchot	Cereal and oilseed operations, pork and dairy farms	TransCanada Pipelines, Brooder Frères, the Municipality Office in St. Adolphe, the University of Manitoba Research Facility at Glenlea
RM of Rosser	Agriculture (dairy, grains, cattle), agri-business, farm equipment supply, transportation, waste management, tourism	CentrePort Industries, Dorsey Converter Station, BFI Progressive Solutions Prairie Green Landfill, Maxim Transport, Manitoba Hydro, Bel Acres Golf and Country Club, Players Golf Course, Trans X, Quick X, Pro Line Trailers, EBD Enterprises, Peterbilt Truck Sales
RM of Springfield	Agriculture, livestock production, banking and insurance, real estate, land developers, aggregate extraction & commercial	Oak Bank Credit Union, Sunova Credit Union, Borland Construction, Border Chemical Company, Birkitt Trucking, Inland Aggregates Ltd., Loveday Mushroom Farms, Springfield Fertilizer
RM of Ste. Anne	Agriculture (dairy, beef, hog, poultry); commercial businesses; aggregate extraction; tourism	Richer Inn, Barnell's Food Plus, Timberline Restaurant, Premier Peat Moss, Diamond Construction, Nelson River Construction, Lilac Resort, Quarry Oaks Golf & Country Club, Cottonwood Golf and Country Club, Oakwood Golf and Country Club, Country Charm Resort, Rock Garden Campground

Rural Municipality	Sectors	Employers¹
RM of Stuartburn	Agriculture and related, health services, commercial business, finance, tourism	Angus Pine Farm (breeding stock), L/B Bison Ranch, MAFRI GO Office, Access Credit Union, Vita & District Health Centre, KC's Outfitting
RM of Tache	Agriculture (livestock and dairy production, forage), aggregate extraction, peat, soil; finance, commercial business; tourism	Caisse Financial Group, Dave's Aggregates, Dawson Trail Construction, DHD Geothermal & Mechanical, Gauthier Soils, T & T Soils, Lorette Golf Course
Town of Ste. Anne	Health services, education, tourism	Sainte-Anne Hospital, Seine River Medical Clinic, Seine River Dental Service, Seine Pharmacy, Ste. Anne Physiotherapy & Sports Injury Clinic and Ste. Anne Chiropractic Clinic; Seine River School Division; Lilac Resort, Quarry Oaks Golf & Country Club, Cottonwood Golf and Country Club and the Oakwood Golf & Country Club
City of Winnipeg	Manufacturing, aerospace, agri-business, energy and environment, finance, information/ communication technologies, life sciences, tourism, transportation and distribution	New Flyer Industries, WinPak Ltd., Boeing Canada, Standard Aero, Granny's Poultry Cooperative, James Richardson & Sons Limited, Manitoba Hydro, National Leasing, Aboriginal Peoples Television Network, MTS Allstream, Canada Inns Corporation, Bison Transport

NOTE:

¹ Does not include all employers

² The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress

NA – not available

SOURCES: Blatz 2015, pers. comm.; CDEM 2015a; CDEM 2015b; CDEM 2015c; Howdle 2015, pers. comm.; Glenboro 2012; MCR 2012a, 2012b, 2012c, 2012d, 2012e, 2012f; RM of La Broquerie, 2015; RM of Macdonald 2015; RM of Piney 2013; RM of Rosser 2013; RM of Springfield 2010; RM of Ste. Anne 2014; RM of Stuartburn 2013; RM of Tache 2015; Statistics Canada 2007a-n; Statistics Canada 2013a-s; Town of Ste. Anne 2013.

14.4.4 Educational Attainment and Field of Study

Between 2006 and 2011, the proportion of the population in the LAA with a trades, college or university certificate, diploma or degree increased from 52% to 62%, following a trend similar to the province (58% in 2011 compared to 54% in 2006). The LAA and province had similar educational attainment levels, with the LAA having a slightly higher proportion of people with apprenticeship or trades certificate, college certificates and diploma.

The most common field of study in the LAA, for those with a trades, college or university certificate, diploma or degree in 2006 and 2011 was architecture, engineering and related technologies (26% and 25%, respectively) with business, management and public administration closely following (18% and 20%, respectively). These are also the most common fields of study provincially.

14.4.5 Aboriginal Educational Attainment and Field of Study

Aboriginal educational attainment was higher in the LAA compared to Aboriginal educational attainment in Manitoba. The proportion of the Aboriginal population in the LAA with a trades, college or university certificate, diploma or degree was 57% in 2011, an increase from 48% in 2006, compared to the province with 40% in 2006 and 2011. The Aboriginal population had similar educational attainment level compared to the LAA and province.

This most common field of study for Aboriginal people in the LAA was architecture, engineering and related technologies (34% compared to 21% for Manitoba in 2011) followed closely by business, management and public administration (24% in 2011). This is similar to educational attainment in the LAA general population and province.

14.4.6 Labour Force

In recent years, Manitoba has enjoyed a lower rate of unemployment than Canada overall. In the period from 2007 to 2012, the unemployment rate in Manitoba has ranged from a low of 4.2% in 2008 to a high of 5.4% in 2010 and 2011. During the 2007 to 2012 period, Canada's unemployment rate ranged from a low of 6.0% in 2007 to a high of 8.3% in 2009 (Province of Manitoba 2014b). The provincial unemployment rate for 2014 was approximately 5.4%, similar to the rate for the province in the 2011 census.

The total labour force in the LAA was 40,655 in 2006 and increased 5.5% to 42,910 in 2011 (Table 14-4). In 2011, the population of the LAA had higher participation and employment rates and a lower unemployment rate than the provincial averages. Within the LAA, participation, employment and unemployment rates varied between RMs and communities (Table 14-4). Participation rates in 2011 ranged from a low of 62.5% in the Village of Glenboro to a high of 80.3% in City of Winnipeg Census Tract 6020110.07. Employment rates ranged in 2011 from a low of 57.7% in the Village of Glenboro to a high of 77.6% in City of Winnipeg Census Tract

6020110.07 and unemployment rates ranged from a low of 2.5% in the Town of Ste. Anne to a high of 7.7% in the Village of Glenboro.

Unemployment rates increased between 2006 and 2011 in the province and LAA, although unemployment rates in the LAA were lower compared to the province. Several RMs and the Village of Glenboro had unemployment rates that increased by double between 2006 and 2011. The potential increase in unemployment rates may be because of the high non-response rates in the 2011 National Household Survey.

Employment rates in the province and LAA increased between 2006 and 2011, with the exception of South Cypress.

Table 14-4 Labour Force Activity in the LAA in 2006 and 2011

Location	Census Year	Total Population aged 15 + (by labour force status)	Participation Rate (%)	Employment Rate (%)	Unemployment Rate (%) ³
Manitoba	2011	946,945	67.3	63.1	6.2
	2006	908,450	67.3	63.6	5.5
LAA					
RM of Headingley	2011	2,070	73.4	70.0	4.3
	2006	1,705	78.0	76.8	1.5
RM of La Broquerie	2011	3,590	72.7	68.8	5.4
	2006	2,675	73.1	71.2	2.6
RM of Macdonald	2011	4,860	74.9	72.5	3.3
	2006	4,315	78.3	75.7	3.4
RM of Piney ²	2011	–	–	–	–
	2006	1,415	60.1	56.9	5.3
RM of Ritchot	2011	4,300	76.4	73.4	4.0
	2006	3,935	79.5	77.4	2.9
RM of Rosser	2011	935	74.9	74.3	0.0
	2006	1,100	77.7	75.9	2.9
RM of South Cypress ⁴	2011	375	74.7	72.0	0
	2006	645	63.6	62.8	0.0
RM of Springfield	2011	11,180	71.3	68.1	4.6
	2006	10,380	73.9	71.3	3.5
RM of Ste. Anne ²	2011	–	–	–	–
	2006	3,435	63.3	61.7	2.8

Location	Census Year	Total Population aged 15 + (by labour force status)	Participation Rate (%)	Employment Rate (%)	Unemployment Rate (%) ³
RM of Stuartburn ²	2011	–	–	–	–
	2006	1,270	63.0	61.0	3.1
RM of Tache	2011	7,660	77.5	73.4	5.4
	2006	6,860	78.1	76.0	2.5
Town of Ste. Anne	2011	1,140	70.2	68.0	2.5
	2006	1,115	66.4	64.1	4.1
Village of Glenboro ⁴	2011	520	62.5	57.7	7.7
	2006	495	54.5	51.5	3.7
COW Census Tract 6020100.02	2011	1,445	65.4	64.0	2.6
	2006	1,310	81.3	79.8	1.4
COW Census Tract 6020110.07 ¹	2011	4,835	80.3	77.6	3.3
	2006	–	–	–	–
LAA Total					
LAA TOTAL	2011	42,910	73	70	4
	2006	40,655	71	69	3

NOTES:

“–” indicates data are not available

Due to data suppression, not all totals (percentage) may add to 100.

¹ Census Tract 6020110.07 changed boundaries between 2006 and 2011.

² Data for this area have been suppressed for data quality or confidentiality reasons.

³ Calculations may vary due to rounding, data suppression or data limitations.

⁴ The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress

SOURCES: Statistics Canada 2007a, 2007b, 2007c, 2007d, 2007e, 2007f, 2007g, 2007h, 2007i, 2007j, 2007k, 2007l, 2007m, 2007n, 2013a, 2013b, 2013c, 2013d, 2013e, 2013f, 2013g, 2013h, 2013i, 2013j, 2013k, 2013l

14.4.7 Aboriginal Labour Force

The Aboriginal labour force population¹ in the LAA increased by 13.6% from 117,200 in 2006 to 133,165 in 2011 (Table 14-5). From 2006 to 2011, Aboriginal participation and employment rates within the LAA increased, while the unemployment rate decreased. Within the LAA, participation, employment and unemployment rates varied between each RM, town, village and census tract. Participation rates in 2011 ranged from 70.9% in the RM of Springfield to 82.4% in the RM of Tache, while 2011 employment rates ranged from 63.1% in the RM of Springfield to 80.9% in the RM of Tache. The Aboriginal unemployment rate was similar to the unemployment rate in the LAA as a whole and was lower than the Aboriginal provincial unemployment rates of 13.8% in 2011. The total Aboriginal labour force in the LAA was 3,530 in 2011, a 27.9% increase from 2,760 in 2006. The highest Aboriginal unemployment rate in 2011 was in the RM of Tache at 11.3%, closely followed by the RM of Springfield with 11.0%.

Table 14-5 Aboriginal Labour Force in LAA in 2006 and 2011

Location	Census Year	Total Population aged 15 + (by labour force status)	Participation Rate (%)	Employment Rate (%)	Unemployment Rate (%) ³
Manitoba	2011	133,165	58.1	50.0	13.8
	2006	117,200	59.2	50.1	15.4
LAA					
RM of Headingley	2011	–	–	–	–
	2006	–	–	–	–
RM of La Broquerie	2011	550	75.5	74.5	0.0
	2006	230	84.8	80.4	0.0
RM of Macdonald	2011	315	74.6	66.7	0.0
	2006	175	80.0	77.1	0.0
RM of Piney ²	2011	–	–	–	–
	2006	225	64.4	55.6	17.2
RM of Ritchot	2011	760	77.6	77.0	0.0
	2006	470	84.0	81.9	2.5

¹ See explanatory notes in Table 14-5 on census data availability.

Location	Census Year	Total Population aged 15 + (by labour force status)	Participation Rate (%)	Employment Rate (%)	Unemployment Rate (%) ³
RM of Rosser	2011	–	–	–	–
	2006	–	–	–	–
RM of South Cypress ⁴	2011	–	–	–	–
	2006	–	–	–	–
RM of Springfield	2011	705	70.9	63.1	11.0
	2006	510	77.5	70.6	8.9
RM of Ste. Anne ²	2011	–	–	–	–
	2006	425	64.7	64.7	0
RM of Stuartburn ²	2011	–	–	–	–
	2006	–	–	–	–
RM of Tache	2011	965	82.4	73.1	11.3
	2006	725	83.4	78.6	5.8
Town of Ste. Anne	2011	235	80.9	80.9	0.0
	2006	–	–	–	–
Village of Glenboro ⁴	2011	–	–	–	–
	2006	–	–	–	–
COW Census Tract 6020100.02	2011	–	–	–	–
	2006	–	–	–	–
COW Census Tract 6020110.07 ¹	2011	–	–	–	–
	2006	–	–	–	–
LAA TOTAL					
LAA TOTAL	2011	3,530	77.0	72.6	3.7
	2006	2,760	65.1	61.5	4.1

NOTES:

“–” indicates data are not available

¹ Census Tract 6020110.07 changed boundaries between 2006 and 2011.

² Data for this area have been suppressed for data quality of confidentiality reasons.

³ Calculations may vary due to rounding, data suppression or data limitations.

⁴ The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress

SOURCES: Statistics Canada 2007o, 2007p, 2007q, 2007r, 2007s, 2007t, 2007u, 2007v, 2007w, 2007x, 2007y, 2007z, 2007aa, 2007ab, 2013m, 2013n, 2013o, 2013p, 2013q, 2013r, 2013s

14.4.8 Labour Force by Industry

Basic industries include agriculture and resource-based industries, construction, manufacturing, educational services, health care and social services. Non-basic industries include wholesale trade, retail trade, finance, real estate, business services and other industries.

Between 2006 and 2011, there was a slight shift from non-basic industry employment (51% to 49%) to basic industry employment (49% to 51%) in the LAA (Table 14-6). Between 2006 and 2011, there was a decline in dependence on agricultural and resource based industries. The number of farms in Manitoba decreased by 16.7% to 15,877 compared to a national decrease of farms by 10.3%. The number of farm operators in Manitoba decreased 16.2% to 22,315. Although total farm area in the province decreased by 5.5% between 2006 and 2011, the average farm size increased 13.4% to 459 ha (1135 acres) in 2011 from 405 ha (1001 acres) in 2006. In comparison, Canada had a 6.9% increase in average farm size, from 295 ha (728 acres) to 315 ha (778 acres) (Statistics Canada 2015a; Statistics Canada 2015b).

Within the LAA, the manufacturing labour force decreased by 3% while construction, educational services, health and social service employment each increased by 2%. The labour force employed in business services decreased by 3% while the labour force employed in finance and real estate increased by 2%.

Table 14-6 Percent Labour Force by Industry in the LAA

Location	Total Experience Labour Force		2006		2011	
	2006	2011	Basic Industries ¹	Non-Basic Industries ²	Basic Industries ¹	Non-Basic Industries ²
Manitoba	602,150	625,805	44	56	43	55
RM of Headingley	1,325	1,515	34	65	38	60
RM of La Broquerie	1,955	2,585	65	35	61	40
RM of Macdonald	3,360	3,625	47	53	46	55
RM of Piney	845	–	66	34	–	–
RM of Ritchot	3,130	3,245	48	52	45	55
RM of Rosser	850	700	52	47	60	40
RM of South Cypress ³	410	280	71	29	69	32

Location	Total Experience Labour Force		2006		2011	
	2006	2011	Basic Industries ¹	Non-Basic Industries ²	Basic Industries ¹	Non-Basic Industries ²
RM of Springfield	7,590	7,950	43	57	42	57
RM of Ste. Anne	2,170	–	56	43	–	–
RM of Stuartburn	785	–	73	26	–	–
RM of Tache	5,335	5,870	51	50	50	51
Town of Ste. Anne	740	790	63	37	57	43
Village of Glenboro ³	270	330	49	52	61	40
COW Census Tract 6020100.02	1,050	935	38	63	40	59
COW Census Tract 6020110.07	–	3,860	–	–	39	61
LAA Total	29,815	31,685	49	51	51	49

NOTES:

“–” indicates data not available or that data for this area have been suppressed for data quality or confidentiality reasons. Numbers may not add up due to rounding to the nearest “5” with Statistics Canada data

¹ Basic Industries include Agriculture, Construction, Manufacturing, Health Care and Social Services and Educational Services

² Non-Basic Industries include Wholesale Trade, Retail Trade, Finance and Real Estate, Business Services and “Other” (which include Management of Companies and Enterprises; Arts, Entertainment and Recreation; Other services (except Public Administration); and Public Administration

³ The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress

REFERENCES: Statistics Canada 2007a, 2007b, 2007c, 2007d, 2007e, 2007f, 2007g, 2007h, 2007i, 2007j, 2007k, 2007l, 2007m, 2007n, Statistics Canada 2013a, 2013b, 2013c, 2013d, 2013e, 2013f, 2013g, 2013h, 2013i, 2013j, 2013k, 2013l

Labour force for clearing and pre-construction activities will most likely come from within the LAA. There is capacity for land clearing and heavy construction within the LAA and this is a competitive sector (Hambley 2015, pers. comm.). The labour force for the construction of the transmission line towers and stringing of the transmission lines is uncertain because it could come from within or outside the province or country.

14.4.9 Aboriginal Labour Force by Industry

The Aboriginal labour force in the LAA has slightly higher basic industry employment compared to the Aboriginal labour force in Manitoba in 2006 and 2011 (Table 14-7). Aboriginal labour force employment for basic and non-basic industries was similar to the labour force employment for the LAA. Most of the 2011 Aboriginal labour force in the Town of Ste. Anne and RM of La Broquerie were employed in basic sectors (83% and 78%, respectively).

In 2011, the construction and manufacturing sectors each accounted for 29% of the Aboriginal labour force in the Town of Ste. Anne. The agriculture and resource sector and health care and social service sector were the largest Aboriginal labour force employment sectors in the RM of La Broquerie (38% and 26%, respectively). The Aboriginal labour force in the LAA had 26% of the population employed in trades, transportation and equipment operators for 675 persons.

Table 14-7 Aboriginal Percent Labour Force by Industry in the LAA

Location	Total Experience Labour Force		2006		2011	
	2006	2011	Basic Industries ¹	Non-Basic Industries ²	Basic Industries ¹	Non-Basic Industries ²
Manitoba	65,520	77,350	46	53	44	55
RM of Headingley	–	–	–	–	–	–
RM of La Broquerie	195	415	70	31	78	22
RM of Macdonald	140	220	50	50	48	52
RM of Piney	145	–	61	41	–	–
RM of Ritchot	400	595	53	46	56	44
RM of Rosser	–	–	–	–	–	–
RM of South Cypress	–	–	–	–	–	–
RM of Springfield	390	500	39	60	47	54
RM of Ste. Anne ³	275	–	67	35	–	–
RM of Stuartburn	–	–	–	–	–	–
RM of Tache	605	795	42	58	46	55

Location	Total Experience Labour Force		2006		2011	
	2006	2011	Basic Industries ¹	Non-Basic Industries ²	Basic Industries ¹	Non-Basic Industries ²
Town of Ste. Anne	–	190	–	–	83	18
Village of Glenboro ³	–	–	–	–	–	–
COW CT 6020100.02	–	–	–	–	–	–
COW CT 6020110.07	–	–	–	–	–	–
LAA Total	2,170	2,715	50	50	53	46

NOTES:

“–” indicates data not available or that data for this area have been suppressed for data quality or confidentiality reasons. Numbers may not add up due to rounding to the nearest “5” with Statistics Canada data

¹ Basic Industries include Agriculture, Construction, Manufacturing, Health Care and Social Services and Educational Services

² Non-Basic Industries include Wholesale Trade, Retail Trade, Finance and Real Estate, Business Services and “Other” (which include Management of Companies and Enterprises; Arts, Entertainment and Recreation; Other services (except Public Administration); and Public Administration

³ The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress

REFERENCES: Statistics Canada 2007o, 2007p, 2007q, 2007r, 2007s, 2007t, 2007u, 2007v, 2007w, 2007x, 2007y, 2007z, 2007aa, 2007ab

14.4.10 Construction Labour Force in Manitoba

The construction labour force supply in Manitoba is in balance, although it currently has an oversupply of electricians. The provincial electrician and carpenter apprenticeship programs have been successful while other trades have not been as successful at turning out apprentice’s/journeymen. Typically, the apprenticeship programs prefer to let out fewer apprentices than the demand warrants keeping demand up. Another reason is that there is a lack of journeymen and companies that take on apprentices, which makes it difficult for the apprentices to collect their apprenticeship hours (Hambley 2015, pers. comm.).

In Manitoba, there is no requirement for companies operating in Manitoba to hire local workers. The industry is highly mobile and the Winnipeg Construction Association (WCA) supports that mobility. There are no provincial barriers and provinces have agreements in place on internal trades so contractors can move freely between provinces (Hambley 2015, pers. comm.).

Construction labour in the province has experienced steady growth for the past 15 years. Construction volume in Manitoba has tripled and the industry has ramped up to keep pace. The biggest change in the labour market is predicted to come from Alberta because of the slowdown

in the oil industry and movement of recently laid off workers back to their home provinces. The demand for labour in Saskatchewan's potash industry has also slowed. Because of these trends, the WCA expects there to be an influx of workers coming to Manitoba to work on projects such as MMTP (Hambley 2015, pers. comm.).

According to the Winnipeg Construction Association, major development projects in Manitoba that may affect labour supply requirements for the construction industry include PTH 59 highway interchange at Birds Hill; South End and North End wastewater treatment plant upgrades in Winnipeg; and rapid transit extension in Winnipeg. However, the construction labour force for these projects is highly specialized and the disciplines involved are not likely to overlap with the construction labour force for the Project. The WCA representative thought that the Bipole III Project could have an effect on the construction labour force, especially as some of the timelines overlap. Bipole III would also require the same specialized labour force for tower and line installation (Hambley 2015, pers. comm.).

It is common for there to be out-of-province companies and workers on transmission line development projects. For example, the workforce engaged on the Wuskatim Project was from Quebec. Companies will be required to build their own workforce. Power line work is unique, and companies specializing in power line work do not work on pipeline projects (Hambley 2015, pers. comm.). General contractors in the LAA will likely undertake services such as land clearing (Hambley 2015, pers. comm.).

14.4.10.1.1 BuildForce Canada Data

The *2015 Construction and Maintenance Looking Forward Report* by BuildForce Canada assessed labour market conditions in Manitoba over a 10-year period of 2015 to 2024. Construction labour force unemployment levels are at a record low, with few unemployed construction workers available to recruit for projects (MHCA 2014; BuildForce Canada 2015). The construction labour force in Manitoba is predicted to grow by 3,200 for the forecast period 2015 and 2024. During this same period, 8,600 retirements (equivalent to 22% of the current labour force) are expected across the 33 trades and occupations tracked by BuildForce. Manitoba will need 11,800 new construction workers over the next ten years. Out-of-province mobility will be required from 2015 to 2019 to meet demands of major engineering projects. Engineering construction employment is expected to peak at 3,600 jobs in 2016 and as major projects wind down will decline by 3,200 back to current levels. Residential construction is expected to add 460 jobs between 2015-2024, with residential construction employment levels peaking in 2019 (BuildForce Canada 2015).

The generation and transmission projects in northern Manitoba will draw a large number of trades' workers between 2016 and 2021. Employers in Manitoba will also be competing with other provinces (*i.e.*, Newfoundland and Labrador, Alberta and British Columbia) for skilled labour in both residential and non-residential projects and in resource projects in recruiting new workers and replacing retiring tradespeople (MHCA 2014). Most out-of-province workers will be required between 2015 to 2019 (BuildForce Canada 2015).

14.4.10.1.2 Census Data

The number of workers employed in occupations related to trade, transport and equipment operation gives an indication of local and regional supply of workers with appropriate skills for construction employment. The LAA had a higher percentage of workers in trade, transport and equipment operation in 2006 and 2011 (20% and 18%, respectively) than the province (15% in 2006 and 2011).

Based on 2011 census figures, the participating construction-related workforce (trades, transport and equipment operators) in the LAA is approximately 5,850 persons. Applying the 2011 unemployment rate for each community yields an available workforce of 258 persons, of which approximately 37 are Aboriginal. Provincially, there are 95,085 trades, transport and equipment operators of which 14,025 are Aboriginal. With an unemployment rate of 6.2%, there is an available workforce of 5,895 construction-related workers in Manitoba, including an Aboriginal labour force of 1,935, in Manitoba.

Using 2011 census figures, the RM of Tache and RM of Springfield have the largest trades, transport and equipment operators' labour force, with 1,285 and 1,485 workers, respectively. When applying the unemployment rate for each RM (Table 14-8, Table 14-9), the RM of Tache and RM of Springfield have the largest available labour force (69 persons and 68 persons, respectively). The RM of La Broquerie had a total labour force of 790 persons and an available labour force 43 persons.

Table 14-8 Trades, Transport and Equipment Labour Availability in each RM and the LAA

Location	Trades, Transport and Equipment Operators	Unemployment Rate (%)	Available Labour Force
Manitoba	95,085	6.2	5,895
Rural Municipalities in the LAA			
RM of Headingley	185	4.3	8
RM of La Broquerie	790	5.4	43
RM of Macdonald	585	3.3	19
RM of Piney	–	–	–
RM of Ritchot	680	4.0	27
RM of Rosser	120	0.0	0
RM of South Cypress ¹	30	0.0	0
RM of Springfield	1,485	4.6	68
RM of Ste. Anne	–	–	–
RM of Stuartburn	–	–	–

Location	Trades, Transport and Equipment Operators	Unemployment Rate (%)	Available Labour Force
RM of Tache	1,285	5.4	69
Town of Ste. Anne	230	2.5	6
Village of Glenboro ¹	75	7.7	6
COW CT 6020100.02	105	2.6	3
COW CT 6020110.07	280	3.3	9
LAA			
LAA Total	5,850	–	258

NOTES:

“–” indicates data are not available

¹ The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress

SOURCES: Statistics Canada 2013a, 2013b, 2013c, 2013d, 2013e, 2013f, 2013g, 2013h, 2013i, 2013j, 2013k, 2013l

Table 14-9 Trades, Transport and Equipment Aboriginal Labour Availability in each RM and the LAA

Location	Trades, Transport and Equipment Operators	Unemployment Rate (%)	Available Labour Force
Manitoba	14,025	13.8	1,935
Rural Municipalities in the LAA			
RM of Headingley	–	–	–
RM of La Broquerie	70	0	0
RM of Macdonald	75	0	0
RM of Piney	–	–	–
RM of Ritchot	100	0	0
RM of Rosser	–	–	–
RM of South Cypress ¹	–	–	–
RM of Springfield	130	11	14
RM of Ste. Anne	–	–	–
RM of Stuartburn	–	–	–
RM of Tache	205	11.3	23
Town of Ste. Anne	95	0	0
Village of Glenboro ¹	–	–	–

Location	Trades, Transport and Equipment Operators	Unemployment Rate (%)	Available Labour Force
COW CT 6020100.02	–	–	–
COW CT 6020110.07	–	–	–
LAA			
LAA Total	675	–	37

NOTES:

“–” indicates data are not available

¹ The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress

SOURCES: Statistics Canada 2007o, 2007p, 2007q, 2007r, 2007s, 2007t, 2007u, 2007v, 2007w, 2007x, 2007y, 2007z, 2007aa, 2007ab

14.4.11 Labour Incomes

Most communities in the LAA had higher median and average incomes than for Manitoba overall. The provincial median income for the population aged 15 and over who worked full-time was \$43,621 compared to the average income in the LAA of \$51,037. The RM of Headingley had the highest median and average incomes for full time workers (\$66,256 and \$79,610, respectively) in the LAA closely followed by City of Winnipeg Census Tract 6020110.07 (\$67,224 and \$75,123, respectively). City of Winnipeg Census Tract 6020100.02 and the RM of Macdonald had high median and average incomes compared to the rest of the LAA. These four communities had the highest education levels and highest Median and Average Incomes in the LAA. The trend was the same with communities with lower educational levels, in which median and average income levels were lower.

The RM of La Broquerie had the lowest income levels and second highest dependence on government transfers in the LAA. The Village of Glenboro had the second lowest income levels, lowest composition of income by wages and salary and self-employment and the highest level of dependence on government transfers for composition of income. Most of the LAA has a higher reliance on self-employment income when compared to the province (with the exception of the RM of Springfield and Village of Glenboro). The RM of South Cypress had the highest composition of income from self-employment with 15.1%.

Average labour income for the construction sector is not provided at the census subdivision. In May 2015 construction workers in Manitoba had average weekly earnings of \$1,048 (Statistics Canada 2015c). Assuming a 50-week work year, the estimated annual wage for construction workers in Manitoba is approximately \$52,400.

14.4.12 Aboriginal Income and Earnings

The median and average incomes for the Aboriginal population aged 15 and over who had full-time employment during the full 2010 year in the LAA were higher than those of the Aboriginal population of Manitoba as a whole. Median Aboriginal income ranged from \$37,208 in the RM of Ritchot to \$72,301 in the Town of Ste. Anne, while the average income ranged from \$43,371 in the RM of Macdonald to \$69,011 in the Town of Ste. Anne. This compared to the median income of \$38,208 and the average income of \$42,759, for the Aboriginal population of Manitoba. Education and income levels did not correlate, as was seen in the LAA. The RM of Ritchot and Town of Ste. Anne had the same levels of college and university graduates, although the Town of Ste. Anne had a higher percentage of people educated in trades.

The RM of Macdonald had the highest composition of Aboriginal income from wages and salaries (90.7%) for Aboriginal employment in the LAA, followed by the RM of Tache with 85.3%. The Town of Ste. Anne had the highest composition of Aboriginal income from self-employment (8.7%) in the LAA. The RM of Springfield had the highest composition of Aboriginal income coming from “other” (14.1%) and government income (12.0%).

14.4.13 Rural Municipal Government Revenues

Rural municipal government revenues and expenditures were averaged for the 3-year period 2010 to 2012 (Table 14-10, Table 14-11). Property taxes accounted for the largest percentage of total revenue in each RM, ranging from 29% in the RM of Headingley (3-year average of \$2,696,067) to 61% in the RM of Ste. Anne and 60% in the RM of La Broquerie (3-year average of \$1,793,394 and \$5,191,350, respectively).

Other important sources of revenue included: water and sewer charges (33% in the RM of Headingley); grants from the Province of Manitoba (19% in the RM of Springfield); and user fees (24% in the RM of Ritchot).

Transportation services accounted for the largest percentage of operational expenditures in each the RMs, with the exception of the RM of Headingley, which spent 35% or an average of \$1,749,579 on water and sewer (Province of Manitoba 2010, 2011 and 2012). The new water treatment plant in Headingley was put into service July 2011, which could account for the increased spending on water and sewer during this period (RM of Headingley 2011c). The percentage range spent on transportation services for the rest of the RMs was 26% in the RM of Ritchot (\$1,651,482) to 51% in the RM of Ste. Anne (\$1,220,453). Other important areas of operational expenditure included: general government services (23% in the RM of Springfield); protective services (28% in the RM of Springfield); and health and environmental services (33% in the RM of Ritchot).

Table 14-10 Rural Municipality Government Revenues Based on a 3-Year Average 2010–2012

Location	Property Taxes (\$)	Grants in Lieu of Taxation (\$)	User Fees (\$)	Permits, Licences and Fines (\$)	Investment Income (\$)	Other Revenue (\$)	Water and Sewer (\$)	Grants Province of Manitoba (\$)	Grants Other (\$)	Total Revenue (\$)
RM of Headingley	2,696,067	245,915	206,444	143,330	91,478	935,629	3,725,364	231,190	987,461	9,262,878
RM of La Broquerie	3,014,441	84,607	262,278	116,219	21,853	598,366	199,324	537,751	203,704	5,038,543
RM of Macdonald	5,191,350	64,264	909,768	98,854	148,257	1,706,718	4,167,616	704,194	328,578	13,319,598
RM of Piney	735,922	60,916	178,373	1,396	42,456	133,202	–	257,601	112,313	1,522,179
RM of Ritchot	3,150,078	53,294	1,838,757	62,247	82,686	310,880	723,534	1,275,954	1,295,292	8,792,722
RM of Rosser	1,751,733	146,831	500,552	235,801	66,765	14,908	1,089,715	116,688	209,213	4,132,206
RM of South Cypress ¹	747,533	174,409	111,131	18,499	8,043	53,221	–	148,366	99,278	1,360,661
RM of Springfield	9,248,298	263,644	2,301,256	1,002,936	117,061	843,544	1,626,912	1,878,217	1,164,576	18,446,444
RM of Ste. Anne	1,793,394	19,743	221,252	65,098	40,670	299,670	–	277,392	246,097	2,953,316
RM of Stuartburn	618,417	29,180	60,336	349	24,254	4,040	7,823	253,273	108,798	1,106,469
RM of Tache	5,239,064	62,615	943,920	116,317	91,944	387,984	845,485	1,013,398	577,870	9,278,598
LAA	34,186,295	1,205,420	7,534,068	1,861,046	735,467	5,288,161	12,385,772	6,694,024	5,333,181	75,213,615

NOTES:

“–” indicates data are not available

¹ The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress

SOURCE: Province of Manitoba 2010, 2011 and 2012

Table 14-11 Rural Municipality Government Operational Expenditures (\$) Based on a 3-Year Average 2010–2012

Location	General Government Services	Protective Services	Transportation Services	Environmental Health Services	Public Health and Welfare Services	Regional Planning and Development	Resource Conservation and Industrial Development	Recreation and Cultural Services	Water and Sewer	Total Expenses	Surplus (Deficit)
RM of Headingley	675,285	261,224	1,357,542	133,912	78	147,492	267,424	434,145	1,749,579	5,026,681	4,236,197
RM of La Broquerie	1,021,374	602,864	1,735,677	153,163	11,083	40,267	26,532	326,681	137,286	4,054,928	983,615
RM of Macdonald	1,046,919	539,488	2,767,864	188,883	11,539	117,418	1,041,681	764,834	1,619,941	8,098,567	5,221,031
RM of Piney	324,738	113,015	475,670	132,618	14,916	33,167	58,419	64,453	–	1,216,996	305,183
RM of Ritchot	898,462	857,869	1,651,482	1,489,534	10,727	9,707	203,113	391,660	790,531	6,303,086	2,489,636
RM of Rosser	544,318	253,070	1,202,580	52,130	5,030	67,719	171,215	183,641	504,400	2,984,103	1,148,102
RM of South Cypress ¹	331,874	80,107	600,660	49,187	13,286	29,634	118,006	112,172	–	1,334,926	25,735
RM of Springfield	2,095,853	1,468,213	6,677,392	1,094,383	82,914	376,620	933,392	851,282	915,752	14,495,798	3,950,646
RM of Ste. Anne	636,968	348,403	1,220,453	116,502	19,825	5,927	33,219	12,098	–	2,393,394	559,922
RM of Stuartburn	282,817	166,616	312,078	117,064	17,350	22,013	50,147	25,805	41,455	1,035,344	71,125
RM of Tache	1,181,886	577,239	2,364,983	906,072	50,079	103,629	111,459	805,301	935,309	7,035,958	2,242,641
LAA	9,040,494	5,268,108	20,366,380	4,433,448	236,828	953,593	3,014,609	3,972,073	6,694,253	53,979,782	21,233,832

NOTES:

“–” indicates data are not available

¹ The RM of South Cypress and Village of Glenboro amalgamated January 1, 2015 to form the Municipality of Glenboro – South Cypress

SOURCE: Province of Manitoba 2010, 2011 and 2012

14.4.14 Summary of Existing Conditions for Employment and Economy

While the provincial economy is diversified in manufacturing, agriculture and resource-based industries, the main economy of the LAA is agriculture and agricultural-related businesses. Other main industries include trades, transportation and equipment operation, health care and social services. Economies within the LAA, RMs, Town of Ste. Anne, Village of Glenboro and City of Winnipeg may differ in the services offered. Much of the labour force in the LAA is employed in trade, transportation and equipment operation and in health care and social services.

The LAA has capacity to support and provide labour for the Project although outside labour will most likely also be required to meet Project demands. The workforce employed in trades, transportation and equipment operation and availability of the workforce is an indicator of where the labour force will be sourced from for clearing activities. The labour force in the LAA increased 5.5% from 40,655 in 2006 to 42,910 in 2011 (Table 14-4). Within the LAA, unemployment rates varied between RMs and communities in 2011, ranging from a low of 2.5% in the Town of Ste. Anne to a high of 7.7% in the Village of Glenboro. Using the 2011 participating workforce in trades, transport and equipment operation and unemployment rates for each community yields an available workforce of approximately 258 persons, of which approximately 37 are Aboriginal.

Labour income in the LAA tended to correlate with educational levels, although this correlation was not observed with the Aboriginal population in the RAA. Labour incomes for the general and Aboriginal population were higher than Provincial incomes with a higher reliance on self-employment. Education levels in the LAA were higher compared to provincial levels with the most common field of study being architecture, engineering and related technologies.

The largest percentage of RM revenue in the LAA comes from property taxes, while the largest expenditure by percentage in most RMs was for transportation services. The exceptions were the RMs of Headingley and Ritchot, which spent the highest proportion of their expenditures on sewer, water, and environmental health.

14.5 Assessment of Project Environmental Effects on Employment and Economy

Overall, Project clearing and construction activities will generate positive economic effects through increased local and regional employment, procurement, contribution to GDP and government revenue. It is expected that local labour will be used for clearing activities while an outside labour force will be used for construction of the transmission lines, stringing the lines and station modifications. This will create positive economic benefits to accommodations and restaurants in the LAA when a camp is not being used. During operations, economic effects related to employment and procurement will be less than during the construction phase. However, the Project will contribute to provincial GDP via the facilitation of power exports to the United States.

The assessment of environmental effects for employment and economy includes:

- employment opportunities during construction, operation and maintenance phases for the local and regional labour force;
- potential effects on local businesses from change in costs or availability of goods and services during construction, operation and maintenance;
- potential for increased business opportunities during construction, operation and maintenance;
- generation of added value to the economy from Project activities (*i.e.*, estimated direct and indirect GDP); and
- generation of government revenues, including income taxes and consumption taxes.

14.5.1 Project Interactions with Employment and Economy

Table 14-12 identifies physical activities and components that might interact with employment and economy for each potential effect.

Table 14-12 Potential Project-Environment Interactions and Effects on Employment and Economy

Project Components and Physical Activities	Potential Environmental Effects			
	Change in local employment and Labour	Change in goods and services	Change in GDP	Change in government revenue
Transmission Line Construction Activities				
Mobilizing (staff and equipment)	✓	✓	✓	✓
Access Route and Bypass Trail Development	✓	✓	✓	✓
Right-of-way Clearing/Geotechnical Investigation	✓	✓	✓	✓
Marshalling Yards, Borrow Sites, Temporary Camp Setup	✓	✓	✓	✓
Transmission Tower Construction and Conductor Stringing	✓	✓	✓	✓
Demobilization	✓	✓	✓	✓

Project Components and Physical Activities	Potential Environmental Effects			
	Change in local employment and Labour	Change in goods and services	Change in GDP	Change in government revenue
Transmission Line Operations/ Maintenance				
Transmission Line Operation/Presence	✓	✓	✓	✓
Inspection Patrols	✓	✓	✓	✓
Vegetation Management (tree control)	✓	✓	✓	✓
Construction				
Station Site Preparation	✓	✓	✓	✓
Electrical Equipment Installation	✓	✓	✓	✓
Station/Operations/Maintenance				
Station Operation/Presence	–	✓	✓	✓
Vegetation Management (weed control)	–	✓	✓	✓

NOTES:
 “✓” = Potential interactions that might cause an effect.
 “–” = Interactions between the project and the VC are not expected.

Because all Project activities have a labour component, it is anticipated that they will all interact with employment and economy. Project construction will create local and regional employment and procurement opportunities, while household spending by workers directly or indirectly associated with the Project will induce additional economic effects. Government tax revenue generated during the construction phase will be from income and consumption taxes. Limited government revenue is anticipated during the operations and maintenance phases from income and consumption taxes because of limited employment and third party procurement.

The Project is not anticipated to affect the cost or availability of goods and services since most materials (e.g., construction steel, transformer and station equipment) will be purchased, manufactured and shipped from outside the LAA. Further details on tower components and station equipment are provided in Chapter 2: Project Description, and in the Greenhouse Gas Life Cycle Assessment – MMTP (The Pembina Institute 2015).

14.5.1.1 Mitigation for Employment and Economy

Facilitation of economic and employment opportunities include the following, which apply to each of the four potential environmental effects for employment and economy:

- Manitoba Hydro will contact local municipal authorities prior to Project start-up.
- Manitoba Hydro will contact First Nation and MMF representatives prior to Project start-up.
- Manitoba Hydro will work with the contractors through the contracting process to promote participation of Manitoba businesses in the Project.

14.5.2 Assessment of Change in Local Employment and Labour

The Project will generate local employment through the hiring of individuals, and purchasing of goods and services from local businesses. The assessment estimates the additional employment generated, and potential effects on local labour supply.

14.5.2.1 Pathways for Change in Local Employment and Labour

Direct Project employment will be generated through the hiring of LAA residents by either Manitoba Hydro or its contractors. Other direct employment will be generated by providers of equipment used in product construction, while indirect employment will be generated within industries supplying intermediate components. Much of the other direct and indirect employment will occur in businesses located outside the LAA. Household spending by local area residents, working on the Project, will generate induced employment.

14.5.2.2 Characterization of Residual Environmental Effects for Change in Local Employment and Labour

CONSTRUCTION PHASE

Project construction will generate direct and indirect income and employment opportunities for the local and regional labour force. Transmission line and facility construction typically requires skilled and unskilled labour for short-term employment. Construction employment will require education or trades certification, or applicable construction experience for some positions. Employment opportunities typically associated with transmission line and station construction include:

- management and supervisory personnel (e.g., supervisor, foreperson)
- transmission line inspection services
- equipment operators (e.g., heavy equipment, bulldozers, cranes)
- trades and apprentices (e.g., mechanics, technicians)

- semi-skilled and unskilled labour (e.g., labourer, mechanic's helper)
- health and safety (e.g., health and safety coordinator)

During construction, ROW clearing could include short-term contracts to clear the transmission line ROW. These opportunities could be available to businesses or individuals in local communities.

The Project will generate an estimated 504 PYs of direct, indirect, and induced employment in Manitoba, and 447 PYs elsewhere in Canada (Table 14-13). Project direct employment is employment onsite by Manitoba Hydro and its contractor employees. Other direct employment is the employment of suppliers of components and materials used directly in Project construction. Indirect employment is with suppliers of raw materials and intermediate goods (*i.e.*, not finished products). Induced employment is associated with household spending from wages earned by direct and indirect workers.

Table 14-13 Estimated Construction Employment in Manitoba and Canada

	Manitoba (PYs)	Other Canada (PYs)	Total Canada (PYs)
Project direct employment	124	0	124
Other direct employment	121	120	241
Indirect and induced employment	259	327	586
Total	504	447	951

SOURCE: MBSEAD 2015

CONSTRUCTION LABOUR FORCE

The LAA had a higher percentage of workers in trade, transport and equipment operation in 2006 and 2011 (20% and 18%, respectively) than the province (15% in 2006 and 2011). Based on 2011 Census figures, the workforce for trades, transport and equipment operator and related occupations in the LAA is estimated at approximately 5,850 persons. Applying the 2011 unemployment rate of 3.6% suggests that the available workforce for these occupation types of 211 persons. Provincially, there are 95,085 trades, transport and equipment operators. Using the provincial unemployment rate of 6.2% and number of trades' workers, Manitoba has an available trades, transport and equipment operator workforce of 5,895 persons. The demand for general construction labour associated with the Project is less than the available regional construction labour force, indicating that a substantial proportion of the non-specialized workforce requirements could be satisfied by the local labour pool. Workers with specialized skills will be brought in from outside the LAA as required.

On average, construction workers in Manitoba have weekly earnings of \$1,048 (Statistics Canada 2015c). Assuming a 50-week work year, the estimated annual wage for construction workers in

Manitoba is approximately \$52,400, which is similar to the average income in the LAA (\$51,037). Considering the relatively low number of workers anticipated to be hired locally and that construction wage rates are similar to average incomes in the LAA, it is not anticipated that the Project will drive wage rates higher.

The Project is not expected to result in labour shortage issues (Hambley 2015, pers. comm.). It is anticipated that most of the labour force for the Project will come from out of province, related to more technically complex components. Transmission line ROW clearing activities will likely involve local construction labour and companies.

OPERATION AND MAINTENANCE PHASE

Manitoba Hydro staff and contractors will be used as required during operations and maintenance. Typical employment opportunities will include staff positions, operators, electrical technicians, mechanical technicians and maintenance utility workers. Contractor staff could include patrollers, and equipment operators. The average workforce requirement is estimated to be between three and five workers. The size of the workforce is largely dependent on the work required during emergencies.

During operations, maintenance activities could include short-term contracts for brush clearing and maintaining the transmission line ROW. Labour force from local communities may be used for these activities.

The stations will operate 24 hours a day, year round. The Dorsey and Riel converter stations will have permanent Manitoba Hydro personnel onsite, while no permanent staff is required at Glenboro South Station. Qualified operators and maintenance personnel will routinely inspect and maintain the stations and fix problems as they arise.

During the operation and maintenance phase for the transmission line, the Project is expected to result in two person-years of employment annually in Manitoba (direct, indirect, and induced) and no employment elsewhere in Canada (MBSEAD 2015). It is expected that station upgrades will not result in additional employment (MBSEAD 2015).

EMPLOYMENT AND BUSINESS OPPORTUNITIES

Clearing and construction of the transmission line will be subject to a collective agreement (the Transmission Line Construction Agreement), which allows Manitoba Hydro to include hiring preferences in construction specifications/tender documents. Employment opportunities will generally be based on the hiring preferences set out in the specifications. These could be available to qualified individuals in construction jobs including site and camp development (labourers, operators and teamsters) for clearing, grubbing, excavation and earthmoving; and foundation preparation (labourers, carpenters and steelworkers) for construction of building, structure and equipment foundations.

14.5.3 Assessment of Change in Goods and Services

This section includes an estimate of direct Project purchasing within Manitoba and the rest of Canada, as well as assessment of potential change to availability of goods and services within the LAA.

14.5.3.1 Pathways for Change in Goods and Services

Project construction will increase demand for goods and services and will generate direct and indirect opportunities for local and regional businesses. Examples of local goods and services provision include the purchase of food (e.g., from grocers and restaurants), fuel and materials. In addition to Project construction contracts, there is potential for sub-contracting opportunities for local and regional businesses. Subcontracting opportunities associated with transmission line and facility construction include:

- ROW site clearing and preparation
- foundations material and labour
- accommodation
- parts supply

Two types of contracts will be used for construction of the station components – conventional construction contracts and purchase contracts. Conventional contracts will apply to site preparation work and related infrastructure at Dorsey Converter Station and Glenboro South Station. General labour and construction contracts for clearing of transmission line, as negotiated with the Contractor, may result in local and regional employment opportunities. Technically complex components such as converter transformers, value groups, ancillary facilities and switchyards will be designed and manufactured offsite. Contracts for the assembly and installation of high voltage equipment involve highly specialized workers in the offsite manufacture of equipment, onsite assembly and installation. Fewer local employment opportunities will be available for these technically complex contracts.

14.5.3.2 Characterization of Residual Effects on Change in Goods and Services

Communities near the transmission line will experience induced economic benefits from the purchase of meals, fuel and accommodations by the contractor(s) when work is being performed. Incidental purchases of repairs and parts for construction vehicles and equipment, as well as the purchase of some materials required for construction will produce economic benefits in nearby communities. Small service companies and agriculture related industries not likely be affected by the Project.

The Project is not anticipated to use locally produced goods and materials; therefore, shortages of goods and services and increased costs to local businesses are not anticipated.

EFFECT OF PROJECT ON LOCAL AND REGIONAL PROCUREMENT

The gross cost of the Project is estimated at \$350 million. This estimate is inclusive of direct construction costs, sunk costs, planning and design, interest and escalation during construction, environmental studies, training, potential local development and contingency costs. Of this, direct Project expenditures for materials and services during the construction phase are estimated to be \$211.8 million (in 2014 dollars), of which \$135.3 million will be for the transmission line and \$76.5 million for station upgrades.

It is estimated that \$110.7 million of construction spending will occur outside Manitoba, mainly on specialized equipment such as steel towers and converters. The remaining \$101.1 million is anticipated to be spent within the province (Table 14-14).

Table 14-14 Estimated Construction Spending, Labour Income and GDP Contribution from the Project

	Manitoba	Other Canada	Total Canada
Direct construction spending (\$ millions)	101.1	10.0	111.1
Labour income (\$ millions)	35.3	18.4	53.7
GDP (\$ millions)	49.8	28.6	78.4

SOURCE: MBSEAD 2015

Average annual expenditures during the operation and maintenance phase for the transmission line are estimated to be \$189,000. Of the total annual expenditures, approximately 97% are anticipated to be direct expenditures in the province (MBSEAD 2015).

14.5.4 Assessment of Change in Gross Domestic Product

This section includes an assessment of the direct, indirect, and induced effect of the Project on the GDP of Manitoba and Canada.

14.5.4.1 Pathways for Change in Gross Domestic Product

Project expenditures during construction will contribute to regional, provincial and national economies. The contribution to the regional economy is measured by employment generated and local procurement, as discussed in Section 14.5.2 and Section 14.5.3, respectively. The contribution of the Project to the provincial and national economy is measured by additional GDP (where GDP is the value added by the Project to the economy after the cost of intermediate goods and services has been removed).

14.5.4.2 Characterization of Residual Environmental Effects for Change in Gross Domestic Product

During construction, the Project is estimated to generate \$35.3 million in labour income and \$49.8 million in GDP in Manitoba, inclusive of direct, indirect, and induced effects (Table 14-14). During the operation and maintenance phases, Project-related expenditures are expected to generate \$0.14 million in labour income and \$0.17 million in provincial GDP annually (MBSEAD 2015). However, during operation and maintenance, the Province will experience a substantial increase in GDP due to increased power sales to the United States. The Project construction phase is expected to contribute \$53.7 million in labour income and \$78.4 million in GDP to Canada's economy (Table 14-14). During the operation and maintenance phase, the Project is expected to contribute \$0.17 million in labour income and \$0.21 million in GDP annually to Canada's economy (MBSEAD 2015).

14.5.5 Assessment of Change in Government Revenue

This section includes an assessment of local, provincial, and regional government revenue generated through the construction and operation of the Project.

14.5.5.1 Pathways for Change in Government Revenue

The Project will generate federal, provincial and local government revenue during construction, operation and maintenance. Revenue includes federal and provincial consumption taxes (*e.g.*, GST and PST payable by Manitoba Hydro). Federal and provincial income taxes will be payable by workers and on taxable income earned by suppliers (direct and indirect) and companies whose earnings are attributed to household spending (*i.e.*, induced income).

14.5.5.2 Characterization of Residual Environmental Effects for Change in Government Revenue

EFFECTS OF PROJECT ON PROVINCIAL AND FEDERAL GOVERNMENT REVENUE

Provincially, the construction phase is expected to generate \$29.4 million in tax revenue. During the operation and maintenance phase, the Project is expected to contribute \$1.2 million in tax revenue annually (MBSEAD 2015)

The construction phase of the Project is expected to generate \$46.3 million in tax revenue to Canada. The operation and maintenance phase is expected to generate \$1.2 million in tax revenue annually for Canada (MBSEAD 2015).

EFFECTS OF PROJECT ON PROVINCIAL AND FEDERAL GOVERNMENT REVENUE

During construction, it is estimated that \$2.3 million will be paid in local taxes. During operations, \$5,000 in taxes is estimated to be paid annually (MBSEAD 2015). The municipal government revenue regime is primarily dependent on the taxation of real property. Transmission line properties of Manitoba Hydro are exempt from taxes levied by a municipality. Furthermore, the Provincial Assessment Branch, which values property for municipal taxation purposes, makes no adjustment in assessed value for either lands in the transmission line right-of-way or properties in close proximity. See Chapter 16: Land and Resource Use for a discussion on the amount of land taken up by the ROW in each RM.

As a corollary to transmission line ROWs, all forms of equipment (*e.g.*, transformers, towers, lines, switches) are exempt from Grants-in-Lieu (GILs) of taxes. Manitoba Hydro does pay GILs on land they own and buildings on the land. This applies to the stations and is why, for example, the RM of Rosser receives a GIL for parts of the Dorsey Converter Station. To the extent that Manitoba Hydro increases either the land area or the number or size of buildings at Dorsey Converter Station, Riel Converter Station or Glenboro South Station, that municipality will see an increase in their GIL (Brown 2015, pers. comm.). The station improvements at Dorsey Converter Station and Glenboro South Station will involve expanding the existing station footprints to accommodate additional equipment and buildings. As such, Manitoba Hydro would pay a greater GIL to the RMs of Rosser and South Cypress, respectively.

14.5.6 Residual Effects Characterization

14.5.6.1 Construction Phase

Project construction will result in direct, indirect and induced effects on local, regional and provincial economies. This will include local and regional employment opportunities, business opportunities, increase in government revenue and increase in the provincial GDP.

Because the estimated supply of available construction labour in the LAA far exceeds Project requirements during construction, the Project will not affect local employers' ability to maintain a workforce. It is anticipated that skilled trades labour may be required from outside the LAA.

The residual environmental effect of construction activities on local employment is anticipated to be positive, low magnitude, limited to the LAA, continuous during construction and short-term in duration, extending only to the construction phase.

No shortages or increased costs to local businesses are anticipated from the use of locally produced goods and materials because of Project construction. The Pembina Institute Greenhouse Gas Life Cycle Assessment for MMTP included an inventory assessment and provided a list of materials, energy and distance inputs identified by Manitoba Hydro (Appendix 1, Table 4; Appendix 2, Table 5). Most of the materials required to construct the transmission line and station components (*e.g.*, steel, aluminum, copper and ceramics) will be provided from sources outside the LAA. Concrete is likely to be provided through a local concrete mixing plant in

Winnipeg, given its proximity to the Project. Similarly, aggregate is available in Winnipeg and surrounding areas and would be the likely source. Therefore, there is unlikely to be cost competition inside the LAA for the purchase of goods and materials.

Effects on accommodations are anticipated to be adverse because Project demands for temporary accommodation may reduce the number of units available for other users (e.g., tourists). However, the use of such facilities is an economic benefit to the hospitality industry (see Chapter 13: Infrastructure and Services).

The residual environmental effect of construction activities on the provision of goods and services (commercial sectors) is anticipated to be positive, of moderate magnitude, province-wide, continuous during construction and short-term in duration.

The residual environmental effect of construction activities on economic activity related to GDP and government revenue is predicted to be positive, of moderate magnitude, province-wide, continuous during construction and short-term in duration.

14.5.6.2 Operation and Maintenance Phase

During operation and maintenance, the effects on local employment are positive, low magnitude, limited to the LAA, continuous and medium-term in duration.

During operation and maintenance, economic effects related to goods and services will be smaller than during the construction phase due to much lower procurement and employment. During operation and maintenance, Project spending will contribute \$171,000 annually (MBSEAD 2015). However, the Province will experience a substantial increase in GDP due to increased power sales to the United States. The Project will also contribute to provincial GDP through the facilitation of power exports to the United States by providing greater interconnection capacity. As a consequence, export revenue will be generated.

Manitoba Hydro expects that the firm export contracts it has signed with five utilities will have a total value of approximately \$10.1 billion after 2015 (Winnipeg Free Press 2015)

During the operation and maintenance phase, effects related to employment, the provision of goods and services and GDP continue to be positive, low magnitude, limited to the LAA for employment and province-wide for other economic benefits (e.g., GDP and government revenue), continuous and medium-term in duration.

14.5.6.3 Summary of Discussion

Project purchasing will create employment, result in business opportunities via the purchase of goods and services, contribute to the provincial and federal GDP, and additionally generate local, provincial, and federal revenue. Most of these expenditure-related economic effects will occur during the construction phase, while during operations expenditure-related economic effects will be minor. Based on an economic analysis, it is expected that the Manitoba economy will benefit from approximately \$101 million in direct construction spending, 504 PYs of employment (direct,

indirect, and induced); and 49.8 million in additional GDP. The Project will seek to hire locally and procure from local businesses; however, due to the nature of labour and equipment needed to build the Project, most procurement will occur outside the LAA, and to an extent, outside the province. The available workforce is considered sufficient to accommodate the increased demand, and the Project will not adversely affect local employers. The procurement of services is considered a beneficial effect, and local service providers will not be adversely affected.

14.5.7 Summary of Environmental Effects on Employment and Economy

Table 14-15 presents a summary of residual environmental effects on employment and economy.

Table 14-15 Summary of Residual Environmental Effects on Employment and Economy

Project Phase	Residual Environmental Effects Characterization						
	Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Socio-economic Context
Change in Local Employment							
Construction	P	L	LAA	ST	C	N/A	N/A
Operation and Maintenance	P	L	LAA	MT	C	N/A	N/A
Change in Goods and Services (Commercial Sectors)							
Construction	P	M	RAA	ST	C	N/A	N/A
Operation and Maintenance	P	L	RAA	MT	C	N/A	N/A
Change in GDP							
Construction	P	M	RAA	ST	C	N/A	N/A
Operation and Maintenance	P	L	RAA	MT	C	N/A	N/A
Change in Government Revenue							
Construction	P	M	RAA	ST	C	N/A	N/A
Operation and Maintenance	P	L	RAA	MT	C	N/A	N/A
KEY							
See Table 14-2 for detailed definitions			Duration: ST: Short-term; MT: Medium-term; P: Permanent		Socio-Economic Context: LR: Low resilience, MR: Moderate resilience, HR: High resilience		
Direction: A: Adverse; N: Neutral; P: Positive			Frequency: S: Single event; IR: Irregular event; R: Regular event; C: Continuous		N/A Not applicable		
Magnitude: N: Negligible; L: Low; M: Moderate; H: High			Reversibility: R: Reversible; I: Irreversible				
Geographic Extent: ROW/Site: PDA; Local: LAA; Regional: RAA							

14.6 Assessment of Cumulative Environmental Effects on Employment and Economy

This section identifies the Project residual effects that are likely to interact cumulatively with residual environmental effects of other physical activities. The resulting cumulative effects are assessed. This is followed by an analysis of the Project contribution to residual cumulative effects.

14.6.1 Identification of Project Effects Likely to Interact Cumulatively

Projects and activities that overlap spatially and temporally with the MMTP could result in cumulative effects, both positive and negative, on employment and economy (Table 14-17). The effects for linear developments for employment and economy will be greater during construction than operation. Effects will be more limited throughout operation and maintenance phase (*i.e.*, employment, purchase of goods and services). Those projects whose construction period overlaps temporally with MMTP are included in Table 14-16. Where residual environmental effects from the Project act cumulatively with those from other projects and physical activities (Table 14-17), a cumulative effects assessment is undertaken to determine their significance.

A number of reasonably foreseeable linear developments in southern Manitoba overlap spatially and temporally with MMTP. Besides MMTP, three major transmission lines to be built by Manitoba Hydro will traverse the Project RAA: Bipole III (construction planned for 2014-2018; in-service planned for 2018), St. Vital Transmission Complex (SVTC) projects (construction planned 2016-2017, in-service planned for 2017) and Dorsey to Portage South Transmission Project (construction planned 2018-2019, in-service planned for 2019). Another potential future transmission line within the RAA is the Richer South Station to Spruce Station Transmission Project (construction planned for 2016–2019), which will have a transmission line originating from Richer South Station and terminating at a proposed pipeline pump station to be located east of the intersection of the TransCanada Pipeline (TransCanada) existing pipeline ROW and the Riel-Forbes 500 kV transmission line.

Bipole III will also traverse the RMs of Macdonald, Ritchot, Tache, Ste. Anne and Springfield. Bipole III will cross the Project as it exits the SLTC/Riel Converter Station. The SVTC, for which construction has commenced, will traverse the RMs of Macdonald, Ritchot, South St. Boniface in the city of Winnipeg, and Tache. The SVTC will cross the Project (D604I) after it exits St. Vital Station and the SLTC traversing the city of Winnipeg and crossing the Floodway east of PTH 59. The Dorsey to Portage South Transmission Project project exits Dorsey station and traverses west towards Portage la Prairie and traverses the RAA for only a short distance (<10 km). The Richer South Station to Spruce Station transmission line project would transmit power from Richer South Station in the RM of Ste. Anne into the RM of Reynolds.

A representative of the WCA indicated that Bipole III could have an effect on the available construction labour force, especially as some of the timelines overlap. Bipole III would also require the same labour force for tower and line installation (Hambley 2015, pers. comm.).

Table 14-16 Present and Reasonably Foreseeable Projects in the RAA, Workforce Size and Project Life

Project	Type	Status	RAA overlap	Approximate Peak Workforce Size and Project Life	
				Construction	Operation
Bipole III Transmission Project	Transmission Line	Proposed	X	2016 – 2018 170 workers	2018 +
St. Vital Transmission Complex	Transmission Line	Ongoing	X	2017 – 2018 187 workers	2018 +
Energy East Pipeline	Oil pipeline conversion	Proposed	X	2017 – 2022 360 workers	2022 +
Dorsey to Portage South Transmission Project	Transmission Line	Ongoing/ Proposed	X	2018-2019 NA	2019 +
Richer South Station to Spruce Station	Transmission Line	Proposed	X	2016 – 2017 NA	2018 +
NW Winnipeg Gas Pipeline	Gas pipeline	Proposed	X	2015 – 2016 NA	2016 +
Natural Gas Upgrades	Gas pipeline	Proposed	NK	2016 – 2020 NA	2018 +
Headingley Bypass	Highway	Proposed	X	2015 – 2019 NA	2020 +
Manitoba Highway Renewal	Highway	Ongoing/ Proposed	X	2015 – 2020 NA	2020 +
South End Water Pollution Control Centre	Wastewater	Proposed	X	2015 – 2018 NA	2019 +

NOTE:

X – overlap; NK – not known; NA – not available

The Energy East Pipeline Project (construction planned for 2017-2022), is a proposed conversion of natural gas pipeline to one that will transport crude oil by TransCanada Pipelines. Compressor station additions will occur at select locations along the mainline. TransCanada Pipelines' mainline traverses the RMs of Macdonald, Ritchot, Tache and Ste. Anne. An addition to the compressor station at Ile des Chenes in the RM of Ritchot will be required for the Project, involving a new footprint of approximately 9 ha.

The proposed Northwest Winnipeg Gas Pipeline Project will involve the extension of an existing natural gas pipeline from northwest Winnipeg to Stonewall and then east to connect to an existing pipeline near the community of Selkirk, MB.

The MCR Transportation Master Plan (2014) includes three major highway projects in the RAA: the Headingley Bypass Project, the St. Norbert Bypass Project and the Oakbank Corridor. The Headingley Bypass Project would involve a new highway connection as an alternative to PTH 1W through the RM of Headingley and connect to CentrePort Canada Way at its interchange at the Perimeter Highway (PTH 101). The St. Norbert Bypass Project would connect PTH 75 south of St. Norbert to Kenaston Boulevard at PTH 100 (south Perimeter) in the City of Winnipeg. The Oakbank Corridor Project would involve a new road connection between Oakbank and Chief Peguis Trail in Winnipeg, including intersection improvements on PR 213 and twinning PTH 15. The St. Norbert Bypass project does not overlap temporally and the Oakbank Corridor project does not overlap either spatially and temporally with MMTP. As such, they are not considered in the cumulative effects assessment.

The Manitoba Highway Renewal Program (2015-2020) is a 5-year capital improvement program that includes projects such as resurfacing (*i.e.*, bituminous pavement), reconstruction (*i.e.*, concrete pavement), intersection improvements, structure and structure rehabilitation. Manitoba Hydro employees and contractors may be required to develop alternative transportation plans if primary routes for workforce travel or material delivery are affected. Roadways involved under the program include PTHs 1, 2, 3, 6, 12, 15, 75, 100, 101 and PR 302 in the RMs of Rosser, Headingley, Macdonald, Ritchot, Springfield, Tache, Ste. Anne and the City of Winnipeg (Socio-Economic Technical Data Report – Traffic Impact Study).

Plans for residential development in the RAA include additional housing in the Oak Bluff area (Oak Bluff West), southwest of the city of Winnipeg and east of the SLTC, and in Sage Creek within the City of Winnipeg north of the south Perimeter Highway in the South St. Boniface area of the city (Qualico Communities 2015a, 2015b). The neighbourhood communities of Bridgwater Forest and South Pointe in Waverley West within the city, north of the Perimeter Highway are also under development (Manitoba Housing 2015; Ladco Company Limited 2015). The Grande Pointe Meadows development is proposed west of PTH 59 south of Winnipeg near Grande Pointe (North Grassie Properties Inc. 2015). In addition to these developments, there are numerous other existing rural residential subdivisions across the land base, as well as several active (or pending) rural residential subdivision applications across the RAA, particularly in the RMs of Headingley, Macdonald, Ritchot, Springfield, Tache, Ste. Anne and La Broquerie.

Projects that overlap spatially and temporally with MMTP could result in cumulative effects on employment and economy (Table 14-17). Employment and capital spending for MMTP is anticipated to be higher during construction, so projects that have a construction period and therefore will have effects that overlap temporally with MMTP are included in Table 14-17.

Table 14-17 Potential Cumulative Environmental Effects on Employment and Economy

Other Projects and Physical Activities with Potential for Cumulative Environmental Effects	Potential Cumulative Environmental Effects			
	Change in local employment	Change in goods and services	Change in GDP	Change in government revenue
Past and Present Physical Activities and Resource Use				
Agriculture (Conversion, Livestock Operations, Cropping and Land Drainage)	–	–	✓	✓
Residential Developments	–	✓	✓	✓
Existing Linear Developments (Riel-Forbes 500 kV, Glenboro-Rugby-Harvey 230 kV, Riel Sectionalization)	–	✓	✓	✓
Other Resource Activities (Forestry, Mining, Hunting, Trapping, Fishing)	✓	✓	✓	✓
Recreational Activities	–	–	–	–
Future Physical Activities				
Bipole III Transmission Project	✓	✓	✓	✓
St. Vital Transmission Complex	✓	✓	✓	✓
Dorsey to Portage South Transmission Project	✓	✓	✓	✓
Northwest Winnipeg Natural Gas Pipeline Project	✓	✓	✓	✓
Richer South Station to Spruce Station Transmission Project	✓	✓	✓	✓
Energy East Pipeline Project	✓	✓	✓	✓
South End Water Pollution Control Centre Upgrade Project	✓	✓	✓	✓
Headingley Bypass	✓	✓	✓	✓
Residential Developments	✓	✓	✓	✓

Other Projects and Physical Activities with Potential for Cumulative Environmental Effects	Potential Cumulative Environmental Effects			
	Change in local employment	Change in goods and services	Change in GDP	Change in government revenue
Natural Gas Upgrade Projects	✓	✓	✓	✓
MIT Capital Projects (Highway Renewal)	✓	✓	✓	✓
Piney-Pinecreek Border Airport Expansion	✓	✓	✓	✓

NOTES:

“✓” = Other projects and physical activities whose residual effects are likely to interact cumulatively with Project residual environmental effects.

“–” = Interactions between the residual effects of other projects and those of the Project residual effects are not expected.

14.6.2 Cumulative Effects Assessment for Change in Employment and Economy

14.6.2.1 Cumulative Effect Pathways for Change in Employment and Economy

Reasonably foreseeable projects occurring in the RAA are anticipated to hire labour and purchase goods and services in the RAA and elsewhere in Manitoba. These projects are anticipated to generate government revenue during construction and operation periods contributing to Manitoba’s GDP. Potential for adverse cumulative effects on employment and economy may be limited for the following reasons:

- Most Project construction in the RAA will be within commuting distance from Winnipeg. Contractors will have a large labour pool to draw on and will not need to compete for labour in the RAA in order to complete their projects.
- The overlap of labour force is minimal as the labour force required for transmission projects would likely not be in competition with the labour force from other types of projects (e.g., pipeline projects).
- The temporal overlap of projects in the RAA is minimal.

- It is anticipated that reasonably foreseeable projects will source required equipment and materials outside the RAA for Project construction.
- It is not anticipated that projects will cause shortages of goods or services in the RAA since most projects are located within commuting distance of Winnipeg or larger service centres. Materials for MMTP are anticipated to be sourced from outside the province or country; therefore, the Project is not anticipated to drain local resources of goods and services.

Overall, reasonably foreseeable projects in the RAA will generate cumulative positive direct, indirect and induced economic effects through employment, procurement, contribution to the provincial GDP and government revenue.

14.6.2.2 Mitigation for Cumulative Effects for Change in Employment and Economy

No mitigation measures for the employment and economy effects of the Project are proposed. It is anticipated that other proponents will implement measures to enhance regional economic benefits, similar to those proposed by Manitoba Hydro in Section 14.5.2.

14.6.2.3 Residual Cumulative Effects

Reasonably foreseeable future projects and activities in the RAA are anticipated to result in positive residual cumulative effects on employment and economy (Manitoba Hydro 2011; Manitoba Hydro 2014; Energy East Pipelines Limited 2014). These include opportunities for individuals and businesses living or operating in the RAA to gain employment or procurement contracts, the generation of regional, provincial and federal tax revenue and an increase in Manitoba's GDP. The cumulative environmental effect on change in local employment is low magnitude, short-term in duration and continuous.

In addition to benefits from direct spending, indirect and induced economic benefits are anticipated in the RAA and Manitoba. Cumulative effects on the provisions of goods and services and economic activity are predicted to be moderate magnitude, short-term in duration and continuous. Cumulative effects relating to employment and economy occur primarily during the construction of projects. Employment and capital maintenance expenditures will be lower during the operation and maintenance phase.

14.6.2.4 Summary of Cumulative Effects

Table 14-18 summarizes cumulative environmental effects on employment and economy.

Table 14-18 Summary of Cumulative Environmental Effects on Employment and Economy

Residual Cumulative Environmental Effects Characterization							
Cumulative Effect	Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Ecological and Socio-economic Context
Cumulative Change in Local Labour							
Cumulative environmental effect with the Project	P	L	RAA	ST	C	N/A	N/A
Contribution from the Project to the overall cumulative environmental effect	Project will provide opportunities for local labour participation. There is low potential for cumulative adverse effects on labour supply.						
Cumulative Change in Goods and Services							
Cumulative environmental effect with the Project	P	M	RAA	ST	C	N/A	N/A
Contribution from the Project to the cumulative environmental effect	Project will provide opportunities for local suppliers to participate economically. There is low potential for cumulative adverse effects on cost and availability of goods and services within RAA.						
Cumulative Change in GDP							
Cumulative environmental effect with the Project	P	M	RAA	ST	C	N/A	N/A
Contribution from the Project to the cumulative environmental effect	Project and reasonably foreseeable projects will increase Manitoba's GDP.						
Cumulative Change in Government Revenue							
Cumulative environmental effect with the Project	P	M	RAA	ST	C	N/A	N/A
Contribution from the Project to the cumulative environmental effect	Project and reasonably foreseeable projects will increase regional, provincial and federal government revenue						
KEY							
See Table 14-2 for detailed definitions.			Duration: ST: Short-term; MT: Medium-term; LT: Long-term		Socio-Economic Context: LR: Low resilience, MR: Moderate resilience, HR: High resilience		
Direction: A: Adverse; N: Neutral; P: Positive			Frequency: S: Single event; IR: Irregular event; R: Regular event; C: Continuous		N/A Not applicable		
Magnitude: N: Negligible; L: Low; M: Moderate; H: High			Reversibility: R: Reversible; I: Irreversible				
Geographic Extent: PDA: ROW/Site; LAA: Local; RAA: Regional							

14.7 Determination of Significance

14.7.1 Significance of Environmental Effects from the Project

Residual effects of the Project on employment and economy will be positive, not adverse. Since the available local labour supply exceeds Project requirements for construction clearing and operation, and the labour force for tower construction and conductor stringing may be from out of province, the labour market in the RAA is not expected to be adversely affected by the Project.

Equipment and materials for the Project will be sourced from outside the RAA, so shortages and increased costs of goods and services to local residents are not expected.

The Project will contribute to the GDP of both Manitoba and Canada. This is a benefit for the province and the country.

Residual adverse effects on employment and economy are not anticipated.

14.7.2 Significance of Cumulative Environmental Effects

CHANGE IN EMPLOYMENT AND ECONOMY

Residual cumulative effects on employment and economy will be positive rather than adverse. Project residual effects on labour and economic activity will act cumulatively with the economic effects of concurrent projects. While the number of projects that will be completed is uncertain and dependent on a range of external economic factors, it is anticipated that the labour market in the RAA will not be adversely affected by the cumulative demands of the various projects. It is anticipated that the Project will procure materials and equipment required for construction outside the RAA, therefore will not contribute to shortages or increased costs of goods and services to local residents. Projects in the RAA will provide economic benefits, increased business opportunities and revenue generation. Therefore, cumulative effects on employment and economy are considered not significant.

14.7.3 Project Contribution to Cumulative Environmental Effects

The Project's residual cumulative effects on employment and economy will be positive. Therefore, the Project's contribution to cumulative effects will be positive and will not adversely affect employment and economy within the RAA.

14.7.4 Sensitivity of Prediction to Future Climate Change

Climate change is not anticipated to affect employment or economic effects associated with the construction or operation of the Project.

14.8 Prediction Confidence

There is a high degree of confidence in the predicted level of Project effects from construction, operation and maintenance on employment and economy. Manitoba Hydro has considerable past experience and understanding of effects from the construction, operation and maintenance of other similar transmission lines in the province. There are limitations with employment and economy data from the 2011 and 2006 censuses. The 2011 census did not use a mandatory long form for reporting, which was voluntary for 2011, thus affecting the GRR for census subdivisions in the RAA. Because of this, some data in the 2011 census were not available because of data quality or confidentiality reasons. In addition, census tract boundaries in the City of Winnipeg changed between the 2006 and 2011 census periods. The mitigation and enhancement measures identified in Section 14.5.2 are standard practice and have been demonstrated and implemented on previously completed projects (e.g., Wuskwatim Generation and Transmission Project, Keeyask Infrastructure Project).

14.9 Follow-up and Monitoring

Manitoba Hydro monitors employment and business effects associated with the development of new projects (e.g., Wuskatim Generating Station and Transmission Project). The objective of monitoring is to track employment and business outcomes on labour income.

Monitoring employment and labour income for the Project will occur by Project component for each year of construction, and will include actual or estimated payments to government associated with the Project (e.g., provincial sales tax, goods and services tax, payroll tax, corporate capital tax and fuel tax).

14.10 Summary

The following summarizes key issues, routing mitigation, potential effects pathways, and conclusions with respect to the assessment and mitigation measures, significance and cumulative effects related to employment and economy for the Project.

Overall, Project clearing and construction activities will generate positive economic effects through increased local and regional employment, procurement, contribution to GDP and government revenue. Project-related expenditures, employment income and government taxes will result in positive effects during construction. Local, regional and Aboriginal employment measures and contract procurement will be implemented, where feasible, during construction.

Positive effects will be more limited during operation and maintenance due to fewer Project-related expenditures and limited Project-specific employment. Tax revenue generation to government will continue. Manitoba Hydro will seek to facilitate economic and employment opportunities associated with the Project.

Significance of Project Effects

The labour market in the RAA is not expected to be adversely affected by the Project related to construction clearing and operations. Equipment and materials for the Project will be sourced from outside the RAA, so shortages and increased costs of goods and services to local residents are not expected. The Project will positively contribute to the GDP of both Manitoba and Canada.

Project mitigation measures will encourage economic participation by local and Aboriginal individuals and businesses. Manitoba Hydro will monitor the implementation of the mitigation measures. Residual adverse effects on employment and economy are not anticipated.

Significance of Cumulative Effects

Project residual effects on labour and economic activity will act cumulatively with the economic effects of concurrent projects. It is anticipated that the labour market in the RAA will not be adversely affected by the cumulative demands of the various projects. It is also anticipated that the Project will procure materials and equipment required for construction outside the RAA; therefore, the Project will not contribute to shortages or increased costs of goods and services to local residents. Projects in the RAA will provide economic benefits, potential for government planning initiatives to address labour supply and training, increased business opportunities and revenue generation. Therefore, cumulative effects on employment and economy are considered not significant.

Project Contribution to Cumulative Environmental Effects

Residual effects from the Project will be positive on employment and economy. Therefore, the Project contribution to cumulative effects will also be positive and will not adversely affect employment and economy within the RAA.

14.10.1 Summary of Commitments

Mitigation measures for change in employment and economy are:

- Manitoba Hydro will contact local municipal authorities prior to Project start-up.
- Manitoba Hydro will contact First Nation and MMF representatives prior to Project start-up.
- Manitoba Hydro will work with the contractors through the contracting process to actively promote participation of Manitoba businesses in the Project.

14.11 References

14.11.1 Literature Cited

- BCTC (BC Transmission Company). 2008. Interior to Lower Mainland (ILM) Project Environmental Assessment Certificate (EAC) Application [online]. Available from http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_doc_list_290_r_app.html [accessed June 11, 2015]
- BuildForce Canada. 2015. 2015-2024 Key Highlights. Construction and Maintenance Looking Forward. Manitoba [online]. Available from http://www.buildforce.ca/en/system/files/products/2015_MB_Constr_Maint_Looking_Forward.pdf [accessed April 20, 2014].
- CDEM (Western Economic Diversification Canada). 2015a. Community: La Broquerie [online]. Available from <http://www.cdem.com/en/sectors/community-economic-development/community-development-corporations-cdc-s-/la-broquerie> [accessed March 13, 2015].
- CDEM. 2015b. Community: Ritchot [online]. Available from <http://www.cdem.com/en/sectors/community-economic-development/community-development-corporations-cdc-s-/ritchot> [accessed March 13, 2015].
- CDEM. 2015c. Community: Ste. Anne [online]. Available from <http://www.cdem.com/en/sectors/community-economic-development/community-development-corporations-cdc-s-/ste-anne> [accessed March 13, 2015].
- Energy East Pipelines Ltd. 2014. Volume 3: Socio-economic Effects Assessment. Prepared for the National Energy Board. Calgary, AB.
- Glenboro. 2012. Economy/Mill Rates [online]. Available from <http://glenboro.com/to-do/economymill-rates> [accessed January 19, 2015].
- Ladco Company Limited. 2015. Information on South Pointe Community [online]. Available from <http://www.ladco.mb.ca/> [accessed June 10, 2015].
- Manitoba Housing. 2015. Information on Bridgwater Forest Neighbourhood [online]. Available from <http://www.bridgwaterneighbourhoods.com/bridgwater-forest/> [accessed June 10, 2015].
- Manitoba Hydro. 2011. Bipole III Reliability Improvement Project Environmental Impact Statement. Prepared by Manitoba Hydro. Winnipeg, MB.
- Manitoba Hydro. 2014. St. Vital Transmission Complex Environmental Assessment. Prepared by Manitoba Hydro. Winnipeg, MB.

- Manitoba Hydro. 2015. First Nation and Metis 2014/2015 Engagement Process. What We Heard. Manitoba Minnesota Transmission Project. Prepared by Manitoba Hydro. Winnipeg, MB.
- MBSEAD (Manitoba Bureau of Statistics Economic Analysis Department). May 2015. Manitoba-Minnesota Transmission Project. Economic Impact Assessment. Prepared for Manitoba Hydro by the Manitoba Bureau of Statistics Economic Analysis Department May 2015.
- MCR (Manitoba Capital Region). 2012a. Regional Profiles – Community Profiles – RM of Headingley [online]. Available from http://www.manitobacapitalregion.ca/main.asp?fxoid=FXMenu,1&cat_ID=3&sub_ID=28&sub2_ID=32 [accessed January 15, 2015].
- MCR. 2012b. Regional Profiles – Community Profiles – RM of Macdonald [online]. Available from http://www.manitobacapitalregion.ca/main.asp?fxoid=FXMenu,1&cat_ID=3&sub_ID=28&sub2_ID=33 [accessed December 22, 2014].
- MCR. 2012c. Regional Profiles – Community Profiles – RM of Ritchot [online]. Available from http://www.manitobacapitalregion.ca/main.asp?fxoid=FXMenu,1&cat_ID=3&sub_ID=28&sub2_ID=34 [accessed January 15, 2015].
- MCR. 2012d. Regional Profiles – Community Profiles – RM of Rosser [online]. Available from http://www.manitobacapitalregion.ca/main.asp?fxoid=FXMenu,1&cat_ID=3&sub_ID=28&sub2_ID=36 [accessed January 15, 2015].
- MCR. 2012e. Regional Profiles – Community Profiles – RM of Springfield [online]. Available from http://www.manitobacapitalregion.ca/main.asp?fxoid=FXMenu,1&cat_ID=3&sub_ID=28&sub2_ID=37 [accessed December 22, 2014].
- MCR. 2012f. Regional Profiles – Community Profiles – RM of Tache [online]. Available from http://www.manitobacapitalregion.ca/main.asp?fxoid=FXMenu,1&cat_ID=3&sub_ID=28&sub2_ID=41 [accessed January 15, 2015].
- MCR. 2014. Transportation Master Plan. Prepared by MMM Group Limited for Manitoba's Capital Region [online]. Available from http://www.manitobacapitalregion.ca/downloads/Capital_RegionTMP.pdf [accessed July 14, 2015].
- North Grassie Properties Inc. 2015. Grant Pointe Meadows [online]. Available from <http://www.winnipegnewhomes.ca/projects/grande-pointe> [accessed June 10, 2015].
- PRGT (Prince Rupert Gas Transmission Project). 2014. Application for an Environmental Certificate Application [online]. Available from http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_document_403_37577.html [accessed June 1, 2015].

- Province of Manitoba. n.d. Assessment Facts – How Do Assessments Relate to Property Taxes? Municipal Government Assessment Services [online].
http://web22.gov.mb.ca/mao/public/doc/assessments_property_taxes.pdf [accessed July 13, 2015].
- Province of Manitoba. 2010. Municipalities of Manitoba Statistical Information 2010 [online].
Available from http://web5.gov.mb.ca/mfas/pdf/10_stats.pdf [accessed March 19, 2015].
- Province of Manitoba. 2011. Municipalities of Manitoba Statistical Information 2011 [online].
Available from http://web5.gov.mb.ca/mfas/pdf/11_stats.pdf [accessed March 19, 2015].
- Province of Manitoba. 2012. Municipalities of Manitoba Statistical Information 2012 [online].
Available from http://web5.gov.mb.ca/mfas/pdf/12_stats.pdf [accessed January 28, 2015].
- Province of Manitoba. 2014a. Overview: Economic Highlights [online]. Available from
http://www.gov.mb.ca/jec/invest/busfacts/overviews/ov_economic.html [Accessed January 28, 2015].
- Province of Manitoba. 2014b. Economy: Unemployment Rate. Manitoba vs Canada [online].
Available from http://www.gov.mb.ca/jec/invest/busfacts/economy/unemploy_rate.html [accessed January 28, 2015].
- Qualico Communities. 2015a. Information on Oak Bluff West [online]. Available from
<http://oakbluffwest.qualicocommunities.com/> [Accessed January 23, 2015].
- Qualico Communities. 2015b. Information on Sage Creek [online]. Available from
<http://sagecreek.qualicocommunities.com/> [Accessed January 23, 2015].
- Rescan (Rescan Environmental Services Ltd.) 2010. Northwest Transmission Line: Application for an Environmental Assessment Certificate [online]. Available from
http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_doc_list_299_r_app.html [accessed June 2015].
- RM of La Broquerie. 2015. Welcome to the Rural Municipality of La Broquerie [online]. Available from <http://www.labroquerie.com/> [accessed January 19, 2015].
- RM of Macdonald. 2015. Economic Base [online]. Available from
http://www.rmofmacdonald.com/index.asp?ID=9&Sub_ID=150&Sub2_ID=0 [accessed January 19, 2015].
- RM of Piney. 2013. Communities [online]. Available from <http://rmofpiney.mb.ca/communities/> [accessed January 19, 2015].
- RM of Rosser. 2013. The Rural Municipality of Rosser [online]. Available from
<http://www.rmofrosser.com/default.asp> [accessed July 13, 2015].

- RM of Springfield. 2011. RM of Springfield Public Water System Annual Report 2011 [online]. Available from <http://www.rmofspringfield.ca/files/2011publicwatersystemannualreport.pdf> [accessed December 22, 2014].
- RM of Ste. Anne. 2014. About the RM of Ste. Anne [online]. Available from <http://www.rmofsteanne.com/main.php?p=28> [accessed July 13, 2015].
- RM of Stuartburn. 2013. Local Business [online]. Available from http://www.rmofstuartburn.com/main.asp?cat_ID=3 [accessed July 13, 2015].
- RM of Tache. 2015. RM of Tache Business – Business Directory. Available from http://www.rmtache.ca/main.asp?fxoid=FXMenu,1&cat_ID=7&sub_ID=65 [accessed July 13, 2015].
- Statistics Canada. No date (a). RM of Headingley, Manitoba. 2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013. Available from <http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4611042&Geo2=PR&Code2=46&Data=Count&SearchText=headingley&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].
- Statistics Canada. No date (b). RM of La Broquerie, Manitoba. 2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013. [http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4602053&Geo2=PR&Code2=46&Data=Count&SearchText=la](http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4602053&Geo2=PR&Code2=46&Data=Count&SearchText=la%20broquerie&SearchType=Begins&SearchPR=01&B1=All&Custom=) broquerie&SearchType=Begins&SearchPR=01&B1=All&Custom= [accessed November 25, 2014].
- Statistics Canada. No date (c). RM of Macdonald, Manitoba. 2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013. <http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4610035&Geo2=PR&Code2=46&Data=Count&SearchText=macdonald&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].
- Statistics Canada. No date (d). RM of Piney, Manitoba. 2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013. <http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4601039&Geo2=PR&Code2=46&Data=Count&SearchText=piney&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].
- Statistics Canada. No date (e). RM of Ritchot, Manitoba. 2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013. <http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4602075&Geo2=PR&Code2=46&Data=Count&SearchText=ritchot&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].

Statistics Canada. No date(f). RM of Rosser, Manitoba.2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013.

<http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4614015&Geo2=PR&Code2=46&Data=Count&SearchText=rosser&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].

Statistics Canada. No date(g). RM of South Cypress, Manitoba.2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013.

<http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4607038&Geo2=PR&Code2=46&Data=Count&SearchText=southcypress&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].

Statistics Canada. No date(h).RM of Springfield, Manitoba.2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013.

<http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4612047&Geo2=PR&Code2=46&Data=Count&SearchText=springfield&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].

Statistics Canada. No date(i).RM of Ste. Anne, Manitoba.2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013.

<http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4602057&Geo2=PR&Code2=46&Data=Count&SearchText=ste.anne&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].

Statistics Canada. No date(j).RM of Stuartburn, Manitoba.2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013.

<http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4601035&Geo2=PR&Code2=46&Data=Count&SearchText=stuartburn&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].

Statistics Canada. No date(k).RM of Tache, Manitoba.2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013.

<http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4602069&Geo2=PR&Code2=46&Data=Count&SearchText=tache&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].

Statistics Canada. No date(l). Town of Ste. Anne, Manitoba.2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013.

<http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4602061&Geo2=PR&Code2=46&Data=Count&SearchText=ste.anne&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].

- Statistics Canada. No date(m). Village of Glenboro, Manitoba. 2001 Community Profiles. 2001 Census of Canada [online]. Last updated August 26, 2013.
<http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CSD&Code1=4607041&Geo2=PR&Code2=46&Data=Count&SearchText=glenboro&SearchType=Begins&SearchPR=01&B1=All&Custom=> [accessed November 25, 2014].
- Statistics Canada. No date (n). Census tract profile for 0100.02 (CT), Winnipeg (CMA) and Manitoba [online]. 2006 Census Tract Profiles. Last updated January 6, 2010.
<http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-597/P3.cfm?Lang=E&CTuid=6020100.02> [accessed November 25, 2014].
- Statistics Canada. 2007a. *Headingley, Manitoba (Code4611042)* (table). 2006 Community Profiles [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from
<http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007b. *La Broquerie, Manitoba (Code4602053)* (table). 2006 Community Profiles [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from
<http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007c. *Macdonald, Manitoba (Code4610035)* (table). 2006 Community Profiles [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from
<http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007d. *Piney, Manitoba (Code4601039)* (table). 2006 Community Profiles [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from
<http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007e. *Ritchot, Manitoba (Code4602075)* (table). 2006 Community Profiles [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from
<http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007f. *Rosser, Manitoba (Code4614015)* (table). 2006 Community Profiles [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from
<http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].

- Statistics Canada. 2007g. *South Cypress, Manitoba (Code4607038)* (table). *2006 Community Profiles* [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007h. *Springfield, Manitoba (Code4612047)* (table). *2006 Community Profiles* [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007i. *Ste. Anne, Manitoba (Code4602057)* (table). *2006 Community Profiles* [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007j. *Stuartburn, Manitoba (Code4601035)* (table). *2006 Community Profiles* [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007k. *Tache, Manitoba (Code4602069)* (table). *2006 Community Profiles* [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007l. *Ste. Anne, Manitoba (Code4602061)* (table). *2006 Community Profiles* [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2007m. *Glenboro, Manitoba (Code4607041)* (table). *2006 Community Profiles* [online]. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007. Available from <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E> [accessed November 25, 2014].

- Statistics Canada 2007n. Census Tract Profile for 0100.02 (CT), Winnipeg (CMA) and Manitoba [online]. Census Profile. 2006 Census. Statistics Canada Catalogue no. 92-597-XWE. Ottawa. Date Modified February 4, 2010. Available from <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-597/index.cfm?Lang=E&CTuid=6020110.07&nomatch=yes> [accessed December 1, 2014].
- Statistics Canada. 2012a. Headingley, Manitoba (Code 4611042) and Division No. 11, Manitoba (Code 4611) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2012b. La Broquerie, Manitoba (Code 4602053) and Division No. 2, Manitoba (Code 4602) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2012c. Macdonald, Manitoba (Code 4610035) and Division No. 10, Manitoba (Code 4610) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2012d. Piney, Manitoba (Code 4601039) and Division No. 1, Manitoba (Code 4601) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2012e. Ritchot, Manitoba (Code 4602075) and Division No. 2, Manitoba (Code 4602) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2012f. Rosser, Manitoba (Code 4614015) and Division No. 14, Manitoba (Code 4614) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].

Statistics Canada. 2012g. South Cypress, Manitoba (Code 4607038) and Division No. 7, Manitoba (Code 4607) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].

Statistics Canada. 2012h. Springfield, Manitoba (Code 4612047) and Division No. 12, Manitoba (Code 4612) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].

Statistics Canada. 2012i. Ste. Anne, Manitoba (Code 4602057) and Division No. 2, Manitoba (Code 4602) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].

Statistics Canada. 2012j. Stuartburn, Manitoba (Code 4601035) and Division No. 1, Manitoba (Code 4601) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].

Statistics Canada. 2012k. Tache, Manitoba (Code 4602069) and Division No. 2, Manitoba (Code 4602) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].

Statistics Canada. 2012l. Ste. Anne, Manitoba (Code 4602061) and Division No. 2, Manitoba (Code 4602) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].

Statistics Canada. 2012m. Glenboro, Manitoba (Code 4607041) and Division No. 7, Manitoba (Code 4607) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].

- Statistics Canada. 2012n. 6020100.02, Manitoba (Code 6020100.02) and Winnipeg, Manitoba (Code 602) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2012o. 6020110.07, Manitoba (Code 6020110.07) and Winnipeg, Manitoba (Code 602) (table) [online]. Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. Available from <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2012p. GeoSearch. 2011 Census. Statistics Canada Catalogue no. 92-142-XWE [online]. Ottawa, Ontario. Data updated October 24, 2012. Available from <http://geodepot.statcan.gc.ca/GeoSearch2011-GeoRecherche2011/GeoSearch2011-GeoRecherche2011.jsp?lang=E&otherLang=F> [accessed November 11, 2014].
- Statistics Canada. 2013a. Headingley, RM, Manitoba (Code 4611042) (table). National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE [online]. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2013b. La Broquerie, RM, Manitoba (Code 4602053) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2013c. Macdonald, RM, Manitoba (Code 4610035) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2013d. Ritchot, RM, Manitoba (Code 4602075) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].

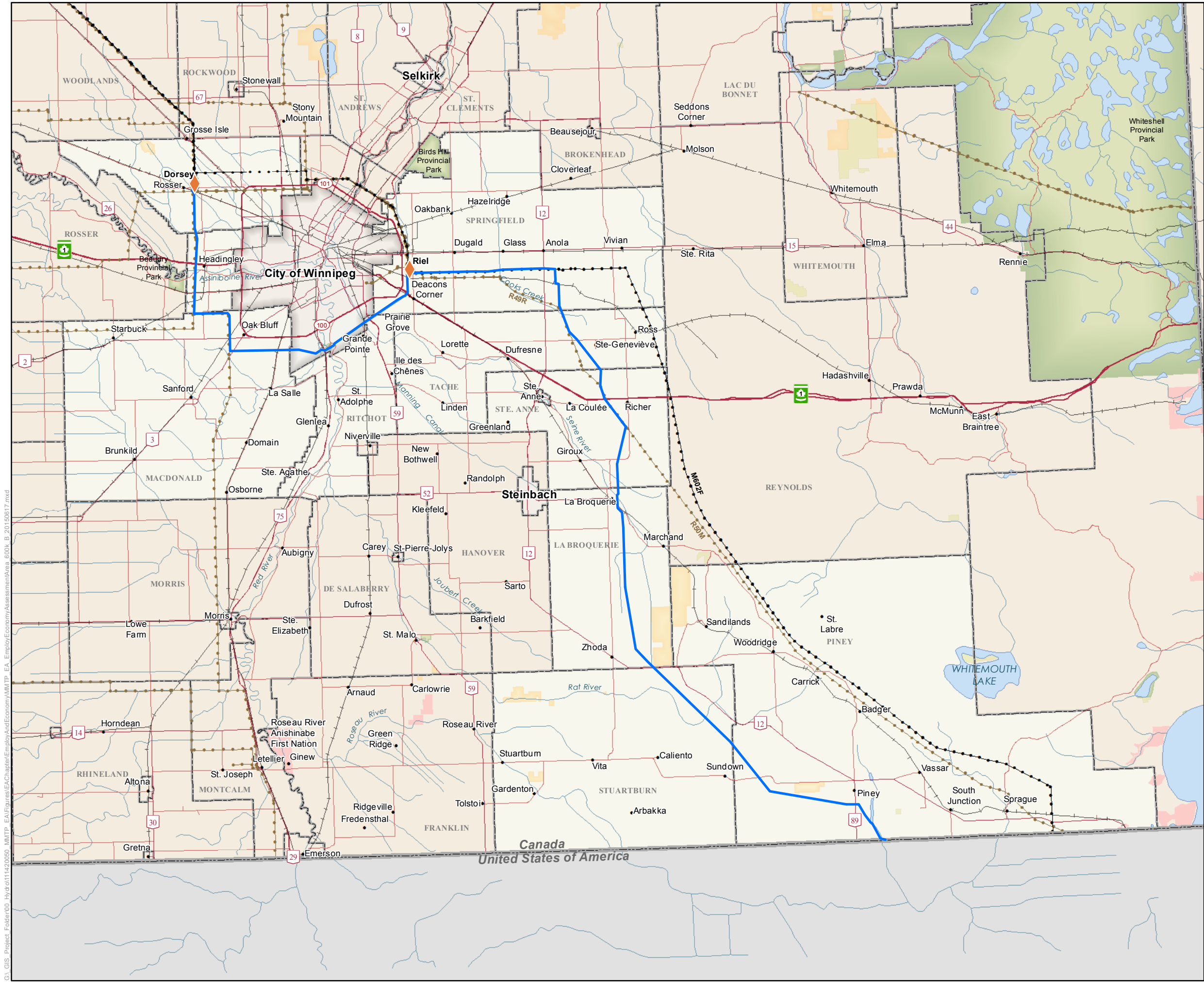
- Statistics Canada. 2013e. Rosser, RM, Manitoba (Code 4614015) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2013f. South Cypress, RM, Manitoba (Code 4607038) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2013g. Springfield, RM, Manitoba (Code 4612047) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2013h. Tache, RM, Manitoba (Code 4602069) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2013i. Ste. Anne, T, Manitoba (Code 4602061) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2013j. Glenboro, VL, Manitoba (Code 4607041) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 24, 2014].
- Statistics Canada. 2013k. 0100.02, Manitoba (Code 3671) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 25, 2014].

- Statistics Canada. 2013l. 0110.07, Manitoba (Code 2505) (table) [online]. National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> [accessed November 25, 2014].
- Statistics Canada. 2013m. Manitoba (Code 46) (table) [online]. National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-011-X2011007. Ottawa. Released November 13, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E> [accessed December 10, 2014].
- Statistics Canada. 2013n. La Broquerie, RM, Manitoba (Code 4602053) (table) [online]. National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-011-X2011007. Ottawa. Released November 13, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E> [accessed December 10, 2014].
- Statistics Canada. 2013o. Macdonald, RM, Manitoba (Code 4610035) (table) [online]. National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-011-X2011007. Ottawa. Released November 13, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E> [accessed December 10, 2014].
- Statistics Canada. 2013p. Ritchot, RM, Manitoba (Code 4602075) (table) [online]. National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-011-X2011007. Ottawa. Released November 13, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E> [accessed December 10, 2014].
- Statistics Canada. 2013q. Springfield, RM, Manitoba (Code 4612047) (table) [online]. National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-011-X2011007. Ottawa. Released November 13, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E> [accessed December 10, 2014].
- Statistics Canada. 2013r. Tache, RM, Manitoba (Code 4602069) (table) [online]. National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-011-X2011007. Ottawa. Released November 13, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E> [accessed December 10, 2014].

- Statistics Canada. 2013s. Ste. Anne, T, Manitoba (Code 4602061) (table) [online]. National Household Survey (NHS) Aboriginal Population Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-011-X2011007. Ottawa. Released November 13, 2013. Available from <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E> [accessed December 10, 2014].
- Statistics Canada. 2015a. 2011 Farm and Farm Operator Data. Snapshot of Canadian Agriculture [online]. Available from <http://www.statcan.gc.ca/pub/95-640-x/2012002/01-eng.htm> [accessed January 8, 2015].
- Statistics Canada. 2015b. Farm and Farm Operator Data. Canola areas surpasses spring wheat area in Manitoba [online]. Available from <http://www.statcan.gc.ca/pub/95-640-x/2012002/prov/46-eng.htm> [accessed January 8, 2015].
- Statistics Canada. 2015c. CANSIM Table 281-0027 Survey of employment, payroll and hours (SEPH), average weekly earnings by type of employee, overtime status and detailed North American Industry Classification System (NAICS). Available from <http://www5.statcan.gc.ca/cansim/a26> [accessed August 4, 2015].
- Town of Ste. Anne. 2013. Welcome to the Town of Ste. Anne [online]. Available from <http://www.steannemb.ca/> [accessed January 19, 2015].
- Winnipeg Free Press. June 13, 2015. Six years of losses will help reap billions in the future: Manitoba Hydro [online]. Winnipeg Free Press. Available online <http://www.winnipegfreepress.com/local/losses-in-building-phase-will-reap-profits-hydro-307247291.html> [accessed June 13, 2015].

14.11.2 Personal Communication

- Blatz, J. 2015. CAO of the RM of Ste. Anne. Phone conversation with Crista Gladstone, Stantec Consulting Ltd., Winnipeg, MB, July 9, 2015.
- Brown, R. 2015. E-mail correspondence regarding municipal revenue impact from the Manitoba-Minnesota Transmission Project with Bill Krawchuk, Senior Environmental Planner, Stantec Consulting Ltd. on March 20, 2015.
- Hambley, R. 2015. President of the Winnipeg Construction Association. In-person meeting with Crista Gladstone, Socio-Economic Analyst, Stantec Consulting Ltd., Winnipeg, MB, April 22, 2015.
- Howdle, L. 2015. Administrative Assistant, Economic Development Winnipeg. Telephone interview with Stantec Consulting, Winnipeg, MB, April 22, 2015.



Manitoba-Minnesota Transmission Project

Project Infrastructure

- ◆ Converter Station (Existing)
- Final Preferred Route (FPR)

Infrastructure

- Existing 500kV Transmission Line
- Existing 230kV Transmission Line

Assessment Area

- Employment and Economy Assessment Area

Landbase

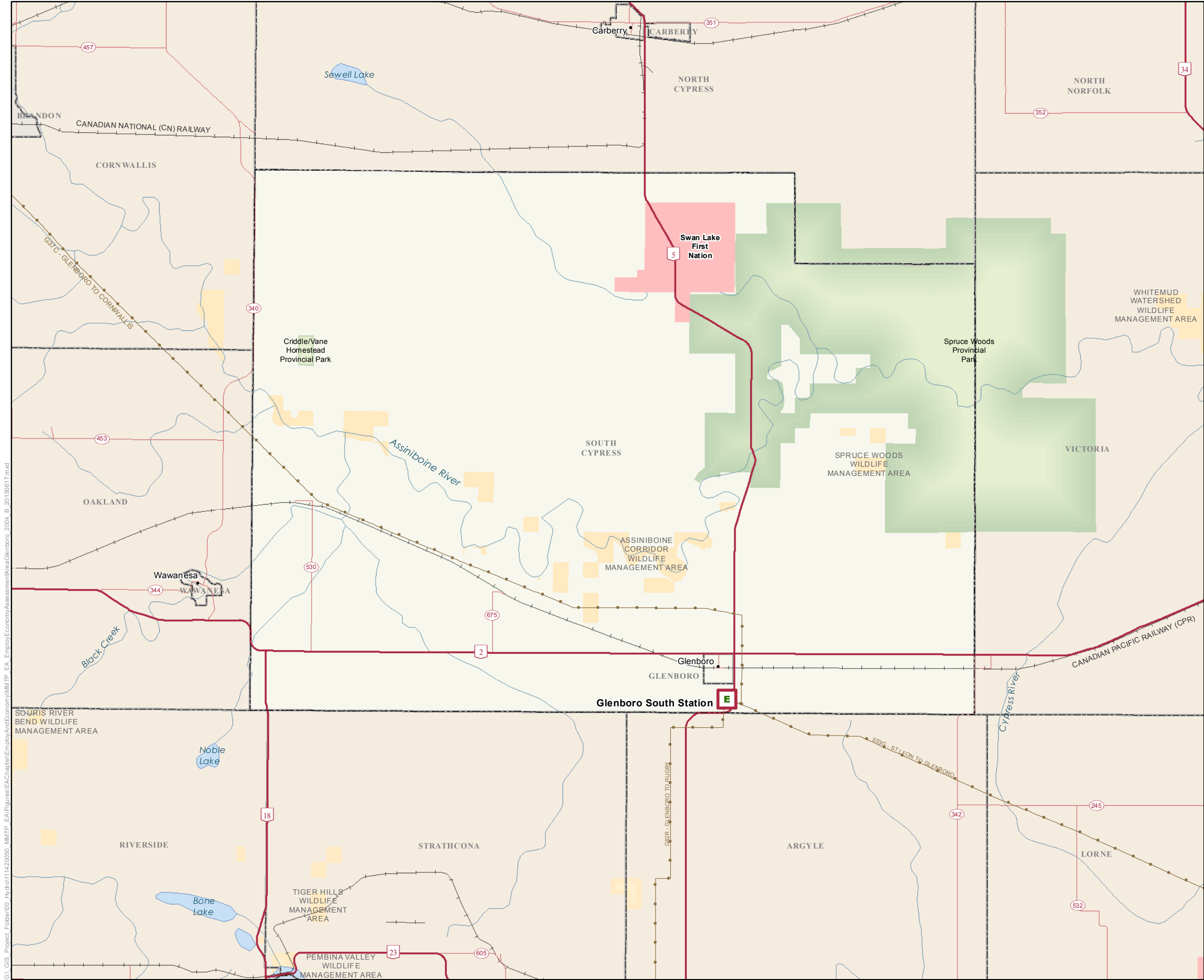
- Community
- Railway
- Trans Canada
- Provincial Highway
- Provincial Road
- City
- First Nation Lands
- Ecological Reserve
- Wildlife Management Area
- Provincial Park
- Rural Municipality

Coordinate System: UTM Zone 14N NAD83
Data Source: MBHydro, ProvMB, NRCAN
Date Created: July 17, 2015

0 10 Kilometres
0 5 10 Miles


1:600,000

Employment and Economy Assessment Area



Manitoba-Minnesota Transmission Project


Project Infrastructure

-  Electrical Station










Infrastructure

-  Existing Transmission Line

Assessment Area

-  Employment and Economy Assessment Area

Landbase

-  Community
-  Provincial Highway
-  Provincial Road
-  Railway
-  City / Town
-  First Nation Lands
-  Wildlife Management Area
-  National/Provincial Park
-  Rural Municipality

Coordinate System: UTM Zone 14N NAD83
Data Source: MBHydro, ProvMB, NRCAN
Date Created: July 17, 2015



0 5 Kilometres
0 2.5 5 Miles
1:200,000

Employment and Economy Assessment Area Glenboro South Station