

## 3.0 Regional Growth Assumptions

### 3.1 Capital Region

Historically the Capital Region<sup>2</sup> has seen significant population and economic growth, especially in the past 5 years. Since 2001, the Edmonton Census Metropolitan Area (CMA) has grown by a total of 10.4%. This is comparable to the total population growth for the province, which has seen strong economic performance ranging from 4% to 7% over the past 3 years.

The growth prospects for the Capital Region continue to be positive with major growth emanating from industrial projects in the Industrial Heartland and the development of a major cargo hub at the Edmonton International Airport (Port Alberta), in addition to the regions role in supporting economic growth in northern Alberta.

Regional economic growth will be supported by the availability of a supply of qualified labour to meet the demands of business and industry. Where economic activity surpasses natural growth in the labour supply, net in-migration is necessary to sustain significant rates of economic growth. This is evident from the net migration to the Capital Region over the past 5 years. Based on data available at the time of preparing these forecasts, between 2001 and 2006 net migration to the Capital Region averaged over 10,000 per year. Net in-migration peaked in 2006 and it is projected that this peak will persist over the first 5 years of the forecast, to 2011. Over the longer term, net in-migration to the Capital Region is projected to moderate, but in each year of the forecast it is expected to significantly exceed the levels achieved between 2001 and 2006 by 3,000 to 4,500 people per year. Thus the rate of population and economic growth incorporated in this scenario is on average greater over the first 10 years of the forecast than that achieved over the past 5 years.

Over the entire forecast period (to 2041), total population growth is projected to average 1.5% per year. Over the first 10 years of the forecast (to 2016), total population growth is projected to average 1.9% per year.

#### 3.1.1 Municipal Allocation of Population Growth

Historically, the municipalities in the Region outside the City of Edmonton have grown at a faster pace than Edmonton. In 1976, municipalities in the Capital Region, outside Edmonton, comprised 23% of the total CMA population. In 2006, the Region municipalities represented 29% of the total population. In allocating the population growth between the City of Edmonton and the other municipalities in the Region, this historic trend has been continued. It has been forecast that over the next 35 years, to 2041, that the City of Edmonton will grow at an average annual rate of 1.3%. The other municipalities in the Capital Region, collectively, are projected to grow at an average annual rate of 1.8%. These differential growth rates result in the Region municipalities representing 33% of the total Capital Region population by the end of the forecast in 2041.

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<sup>2</sup> For the purposes of the figures presented here, the Capital Region includes the Edmonton CMA and all of Lamont County and Town of Lamont.

### 3.1.2 Factors Considered in the Municipal Allocations

Within the total population growth projected for the Capital Region, the following factors have been considered in determining the growth of each municipality:

- The population control totals provide the boundaries within which regional growth is allocated.
- Municipal Forecasts (where available) were reviewed and the allocation of the Growth Category to each municipality was determined.
- The impact of known or expected regional economic development is considered in determining the expected desirability of the municipality as a residential location.
- Historical population growth is considered in determining the appropriate rate of growth for each municipality. Historical growth rates provide an indication of the “market” choices made in selecting a residential location.
- Urban Versus Rural Growth Rates: It is expected that, generally, population will grow at a higher rate in larger urban centres.
- Reliance on existing Planning Documents: In determining the allocation of population by municipality (and at a finer traffic zone level)<sup>3</sup>, existing planning documents (e.g. Neighbourhood Structure Plans, etc) have been relied upon in the analysis.<sup>4</sup>

### 3.1.3 Population Forecasting Model

All population forecasts were prepared using a cohort survival forecasting model with the allowance for net migration. These forecasts were prepared at a fine area traffic zone level for all the municipalities in the Capital Region. This involved allocating the established population target for each municipality to traffic zones within the municipality designated for residential development. The timing and pattern of growth has been developed based on historical trends, known availability and sequencing of servicing, and proposed and approved land use plans.

The forecasts discussed above include additional population in the Region outside the City of Edmonton associated with construction activity in the Industrial Heartland, and residential development in NE Edmonton associated with Industrial Heartland growth. The total additional population associated with these areas ranges between 30,000 and 40,000 over the forecast period.

### 3.1.4 Employment

The total employment growth in the Capital Region was determined through an evaluation of the workforce potential associated with the population forecasts as well as the demand for workers generated through various known and expected economic development activities. Of particular importance to these forecasts are the projected growth and development in the Industrial Heartland and Port Alberta.

The Industrial Heartland consists of over 317 square kms of land designated for both existing and proposed heavy industrial development. A number of new upgraders and

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<sup>3</sup> There are 558 traffic zones in the City of Edmonton and 626 traffic zones in the Edmonton Region which comprises the Edmonton CMA.

<sup>4</sup> Two significant exceptions to this rule have been permitted for the purpose of these forecasts. The NE area of Edmonton which has been held in reserve has been assumed to host both residential and non-residential development. Also, the area west of Nisku Business Park in Leduc County, across QEII and immediately north of the Edmonton International Airport, has been assumed to be available for industrial and commercial development.

proposed expansions of existing plants have been announced for the area. The direct construction and on-going employment created by announced, proposed and expected Industrial Heartland development projects was based on information provided by Alberta Employment, Immigration and Industry. These employment projections indicated that total employment associated with these projects could peak at over 39,000, and range between 30,000 and 40,000 person years of employment in each year of the forecast.<sup>5</sup>

Port Alberta is the name used by Edmonton Airports initiative to develop a multi-modal transportation hub at the Edmonton International Airport. It is projected that by 2036 total passenger and cargo traffic will grow to a level that is roughly equal to where the Vancouver International Airport is at today. This results in a significant amount of development and growth related to Port Alberta with total employment at the airport site growing to approximately 12,000 jobs by 2016 and increasing to 33,000 jobs by the end of the forecast in 2041.

In addition to these major economic growth centres, new employment growth is also projected for the NE and SE of Edmonton, the Nisku Business Park<sup>6</sup>, Acheson Industrial Area, the South Sturgeon Industrial Park (W-4) and other industrial areas in the region. This growth is consistent with business expansion as a result of the Capital Region's role as a supplier of goods and services to development in northern Alberta.

## **3.2 Employment Growth Scenario**

### **3.2.1 Employment Scenario**

Employment growth was allocated to traffic zones in each municipality in the region based on expected development and the potential of the area as well as the official planning documents that determine the nature of development allowed by statute. From an industry perspective, Manufacturing and Primary Industry sector growth lead economic growth. Manufacturing is a very diverse category and in a high growth economy is typically a lead industrial sector. The component of the Primary Industry sector that is projected to grow relates to the various support activities for oil and gas development and process included in this industry sector. Wholesale Trade is also projected to be a significant growth sector, especially with the Port Alberta initiative proceeding.

Commercial and non-commercial services are projected to largely follow population growth. In the non-commercial services sector, specific assumptions about the size and location of major post secondary education and health facilities were determined based on the projection of population growth.

The construction sector is another industry projected to grow at a rate faster than the average growth. This includes both residential construction as well as the significant construction projected for the development of the heavy industrial projects assumed to be built in the Capital Region over the forecast period.

A more detailed discussion of the forecasting methodology and assumptions specific to the employment projections is contained in the report "Capital Region Infrastructure

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<sup>5</sup> Because person years includes both full time and part time positions, the number of direct jobs created would be higher.

<sup>6</sup> This includes industrial and commercial growth on the west side of QEII adjacent to the Nisku Business Park.

Review – Population & Employment Forecasts”. (See Appendix A – Capital Region Infrastructure Review-Population and Employment Forecasts)

### **3.2.2 Alberta Industrial Heartland (AIH)**

The AIH includes portions of four municipalities in the northeast part of Alberta's Capital Region: the City of Fort Saskatchewan, Lamont County, Strathcona County, and Sturgeon County.

The AIH is an economic development partnership involving municipalities, industry and the provincial government that has generated investments of over \$25 billion in petroleum, petrochemicals, metals and minerals processing facilities.

Based on a forecast of industrial development prepared by Alberta Employment Immigration and Industry there are 10 major industrial upgrader class projects scheduled to be constructed in the Industrial Heartland over the next 15 years (see Figure 2 - Alberta Industrial Heartland Projects). While specific projects are not identified for the rest of the forecast period, it is projected that there would be continued development of new and expansion of existing heavy industry projects that would approximate the scope of development for Years 5 through 15 of the forecasts. Overall, the total employment, including construction, turnaround and operations associated with these projects, is expected to range between 30,000 and 40,000 person years of employment in each year of the forecast. The number of jobs associated with this forecast would be greater as person years reflect both full time and part time positions.

In addition to development in the Industrial Heartland, the City of Edmonton has indicated that restrictions on development in the NE area of the City would be removed to allow both industrial and commercial development north of Manning Freeway. Included in the forecasts are two “upgrader” scale industrial projects as well as light and medium industrial development.

Land development within the AIH is primarily guided by Alberta's Industrial Heartland Complementary Area Structure Plan (CASP). The CASP encompasses a 19,400 hectare area located northeast of the City of Edmonton and includes portions of Fort Saskatchewan, Lamont County, Strathcona County, and Sturgeon County (Appendix B – Alberta's Industrial Heartland Complementary Study Area). The CASP was developed to ensure a coordinated and responsible approach to land use planning and growth throughout the Heartland region. Complementary area structure plans were developed by each of the four AIH municipalities to provide appropriate development setbacks, direct the development of heavy industrial use to poor agricultural land, prohibit the development of new multi-lot residential developments, and ensure the continued cooperation between the infrastructure servicing needs and capabilities between the Heartland partners.

### **3.2.3 Port Alberta (Edmonton International Airport)**

The Edmonton International Airport is located within Leduc County, and is comprised of a 2800 hectare site, making it the second largest airport in terms of land area in Canada. The Airport lies within close proximity to the City of Edmonton, the Nisku Industrial Park and the City of Leduc (see Appendix C - Port Alberta ASP Future Land Use Map).

**Figure 2**  
**Alberta Industrial Heartland Projects - September 2007**

Company	Project Name	Description of Project	Traffic Zone(s)	Project Status	Construction Start/End Date	Operations start
North West Upgrading	North West Upgrader	New upgrader plant - Phase I	4054	Approvals have been applied for	2007-2011 and beyond	2010
		New upgrader plant - Phase II				2012
		New upgrader plant - Phase III				2015
Petro-Canada	Strathcona Refinery Converter	Refinery feedstock conversion	4054	Under construction	2008-2015	2009
	Sturgeon Upgrader	New upgrader plant - Phase I New upgrader plant - Phase II New upgrader plant - Phase III	4054	Application in December 2006, Project announced	2008-2011	2011 2015 No Data
Synenco Energy Inc	Northam Lights Upgrader	New upgrader plant - Phase I New upgrader plant - Phase II	4054	Application sent for approval in October 2006	Project being assessed by	Unknown
	Heartland Upgrader	New upgrader plant - Phase I New upgrader plant - Phase II New upgrader plant - Phase III	3903	Merchant upgrader under construction, Announced	2006-2011 and beyond, 2006-2008	2012 2008 2010 2012
North American Oil Sands	North American Upgrader	New upgrader plant - Phase I New upgrader plant - Phase II	3910	Site Assembled, Application on April 19, 2006, Announced	2009-2011 and beyond, 2011-2014	2011 2014
Shell Canada Inc	Scottford Upgrader Expansion	Expansion of upgrader plant Phase I Expansion of upgrader plant Phase II Expansion of upgrader plant Phase III	3902	Plant is already in operation and integrated with refinery and petrochemical production. Want an additional 90,000 Barrels/Day. The expansion was approved in October 2006. Under construction	2007-2009, 2006-2010	2006 2010 TBD
	Total E&P Canada Ltd	Blumen Upgrader	3904	Site Assembled Intends to file full regulatory documentation by the end of 2007 (company website)	2008-2011 and beyond	2011 2009
Suncor	Catalyst recovery	New upgrader plant	4054	Acquiring land	2013-2020	
King Tech Maple	Wapisoop Pipeline	Pipeline - SC portion	3903	Proposed	2008	2008
	Stonehill Terminal	Pipeline terminal	3902	Pending approval, submitted Jan 2006 (enbridge website), Announced	2007	
Kinder Morgan	Pipeline terminal	Petroleum storage terminal	3903	Proposed	2005-2008	
	Access Pipeline	Bitumen pipeline - Wood Buffalo to Edmonton	4071	Announced	2005-2005 2006-2006	
Bison Pipeline	Hydrogen Plant	Bitumen pipeline - Wood Buffalo to Petro Canada		Completed		
	Air Products Canada	Phase I		Under construction		
Provident Energy	Diluent and Storage	Expansion			3-5 years	2008
	Aux Sable HOP	Recovery of ethane/ethylene and propane/propylene gas liquids for petrochemical feedstocks	3004	Construction is expected to begin in Spring 2007		
Petrogas Liquids	TransCanada Pipelines	Storage Facility	3902	Conceptual		
	Total SA	Pipeline	3304	Conceptual		
Gateway & TMX	Corridor Pipeline	New plant under construction/relocation	3902	Under construction	Should be completed in late 2007	2008
	Gulf Metallurgical	Catalyst recycling	3310	Conceptual		
ATCO	Texas Exploration	Fertilizer	3907	Proposed		
	Sherritt metals	Sodium Chlorate Manufacturing	3909	Proposed		
Canexus	Nitrogen Operators Facility	Demolition and relocation - expansion	3909	Proposed		
	Triton	Application submitted in 2007	3909	Proposed		
Contura	Sulphur Fertilizer and Shipping	New plant under construction	3909	Application submitted in 2007		
Alberta Sulphur						

Note 1: This table reflects projects identified and the status as of July 2007. See Appendix A to view the report which contains this table.

Note 2: The information presented in this table was used in the preparation of Applications Management Consulting Ltd.'s September, 2007 population and economic growth forecast.

Although development at the Airport falls under the jurisdiction of Transport Canada the Edmonton Regional Airports Authority has prepared an Area Structure Plan to provide clear direction on the development of the Airport lands.

The Edmonton International Airport Area Structure Plan (ASP), also referred to as the Port Alberta ASP, designates the 700+ ha of undeveloped land around the airport facility for the development of Port Alberta. Port Alberta is defined as a multi-modal transportation hub that integrates air, sea and surface transportation in one location, includes the development of a new runway, and provides a large supply of land for industrial and limited commercial uses to host manufacturing, production, supply, distribution and storage of goods.

A report prepared by the Airport, titled "Port Alberta: Multi-Modal Transportation Gateway for the 21st Century" rationalizes the development of Port Alberta as a means to provide a coherent and effective strategy to improve freight transportation logistics in the Capital Region, and to provide a gateway to global markets.

Based on projections provided by Edmonton Airports, and modified for the purposes of this forecast, total aviation activity at the International Airport will, by 2036, grow to levels comparable to that which currently exists at the Vancouver International Airport. Assuming a steady rate of growth and development, by 2016, total employment at the Edmonton International Airport and associated with Port Alberta will grow to approximately 12,000. This is projected to increase to 33,000 jobs by the end of the forecast period in 2041.

The development opportunities proposed under the Port Alberta ASP may require amendments to the Memorandum of Agreement (Leduc County Bylaw 35-92) between Leduc County and the Edmonton Regional Airports Authority. The memorandum established a land use concept for the airport and a process for development review. By virtue of the 1998 Intermunicipal Development Plan, between Leduc County and the City of Leduc, the City of Leduc must be notified of any changes to the Memorandum of Agreement between Leduc County and Edmonton Airports. However, indications are that the City of Leduc and Leduc County support the Port Alberta Plan, while the City of Edmonton is supportive of the Port Alberta concept.

### **3.2.4 Nisku Industrial Park**

The Nisku Industrial Park is located within Leduc County and to the east of the Edmonton International Airport.

Development of the Nisku Industrial Park is governed by the Nisku Area Structure Plan (ASP). The ASP designates the lands within its boundaries for a mix of light, medium and heavy industrial uses, encompasses an area of approximately 3,000 ha, and accommodates a total workforce of 15,000 to 17,000 people. Approximately 2,500 ha of land within the Park is developed and the remainder of lands will be developed in the near future.

Facing a potential lack of industrial land to satisfy market demand, an anticipated expansion of the Edmonton International Airport, and the prospect of significant road network changes Leduc County is preparing the Highway 19 Area Structure Plan (ASP). The Plan area is located immediately north of the Airport, is bounded on the east by Queen Elizabeth II Highway, on the south by Highway 19, on the west by the North Saskatchewan River and the ravine east of Devon, and on the north by Township Road

510. The ASP is intended to meet anticipated market demand by guiding a mix of industrial, commercial and residential development.

At the time of writing this report the Highway 19 ASP review process is underway, but not yet completed. Consideration of this ASP and its development potential were included in our regional forecasts.

### **3.3 Population Growth Scenario**

#### ***Capital Region***

The population growth for the Capital Region is projected to be significantly above all the historical trend lines and should be considered a high projection of growth opportunities for the region. The Capital Region population is projected to grow from 1,046,710 in 2006 to 1,737,796 by 2041. This growth reflects an average annual change of 1.5% over the forecast period.

The population forecasts for each municipality in the Capital Region are summarized below:

#### ***Beaumont***

Beaumont's population is projected to grow from 8,961 in 2006 to 20,687 by 2041. This growth reflects an average annual change of 2.4% over the forecast period.

#### ***Bon Accord***

Bon Accord's population is projected to grow from 1,535 in 2006 to 3,023 by 2041. This growth reflects an average annual change of 2.0% over the forecast period.

#### ***Bruderheim***

Bruderheim's population is projected to grow from 1,215 in 2006 to 3,835 by 2041. This growth reflects an average annual change of 3.3% over the forecast period.

#### ***Calmar***

Calmar's population is projected to grow from 1,959 in 2006 to 3,566 by 2041. This growth reflects an average annual change of 1.7% over the forecast period.

#### ***Devon***

Devon's population is projected to grow from 6,256 in 2006 to 11,389 by 2041. This growth reflects an average annual change of 1.7% over the forecast period.

#### ***Edmonton***

The City of Edmonton's population is projected to grow from 740,041 in 2006 to 1,158,872 by 2041. This growth reflects an average annual change of 1.3% over the forecast period.

#### ***Fort Saskatchewan***

Fort Saskatchewan's population is projected to grow from 15,089 in 2006 to 40,392 by 2041. This growth reflects an average annual change of 2.9% over the forecast period.

#### ***Gibbons***

Gibbons' population is projected to grow from 2,642 in 2006 to 7,003 by 2041. This growth reflects an average annual change of 2.8% over the forecast period.

**Lamont County**

Lamont County's population is projected to grow from 3,935 in 2006 to 4,582 by 2041. This growth reflects an average annual change of 0.4% over the forecast period.

**Town of Lamont**

Lamont's population is projected to grow from 1,675 in 2006 to 2,446 by 2041. This growth reflects an average annual change of 1.1% over the forecast period.

**Leduc County**

Leduc County's population is projected to grow from 12,734 in 2006 to 21,852 by 2041. This growth reflects an average annual change of 1.6% over the forecast period.

**City of Leduc**

Leduc City's population is projected to grow from 17,021 in 2006 to 33,077 by 2041. This growth reflects an average annual change of 1.9% over the forecast period.

**Legal**

Legal's population is projected to grow from 1,193 in 2006 to 2,276 by 2041. This growth reflects an average annual change of 1.9% over the forecast period.

**Morinville**

Morinville's population is projected to grow from 6,775 in 2006 to 14,373 by 2041. This growth reflects an average annual change of 2.2% over the forecast period.

**New Sarepta**

New Sarepta's population is projected to grow from 410 in 2006 to 664 by 2041. This growth reflects an average annual change of 1.4% over the forecast period.

**Parkland County**

Parkland County's population is projected to grow 29,740 in 2006 to 49,476 by 2041. These figures include those of the former Village of Entwistle presented in Appendix A. This growth reflects an average annual change of 1.5% over the forecast period.

**Redwater**

Redwater's population is projected to grow from 2,192 in 2006 to 4,450 by 2041. This growth reflects an average annual change of 2.0% over the forecast period.

**Spruce Grove**

Spruce Grove's population is projected to grow from 19,496 in 2006 to 35,492 by 2041. This growth reflects an average annual change of 1.7% over the forecast period.

**St. Albert**

St. Albert's population is projected to grow from 57,787 in 2006 to 110,901 by 2041. This growth reflects an average annual change of 1.9% over the forecast period.

**Stony Plain**

Stony Plain's population is projected to grow from 12,518 in 2006 to 22,507 by 2041. This growth reflects an average annual change of 1.7% over the forecast period.

**Strathcona County**

Strathcona County's population is projected to grow from 82,705 in 2006 to 153,264 by 2041. This growth reflects an average annual change of 1.8% over the forecast period.

**Sturgeon County**

Sturgeon County's population is projected to grow from 18,667 in 2006 to 30,126 by 2041. This growth reflects an average annual change of 1.4% over the forecast period.

**Thorsby**

Thorsby's population is projected to grow from 945 in 2006 to 1,622 by 2041. This growth reflects an average annual change of 1.6% over the forecast period.

**Wabamun**

Wabamun's population is projected to grow from 601 in 2006 to 917 by 2041. This growth reflects an average annual change of 1.2% over the forecast period.

**Warburg**

Warburg's population is projected to grow from 621 in 2006 to 1,004 by 2041. This growth reflects an average annual change of 1.4% over the forecast period.