SLAVE LAKE 2035

Working Together for a Sustainable Future

Slave Lake 2035 Growth Study

March 2007




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1.0 Introduction

1.1 Purpose

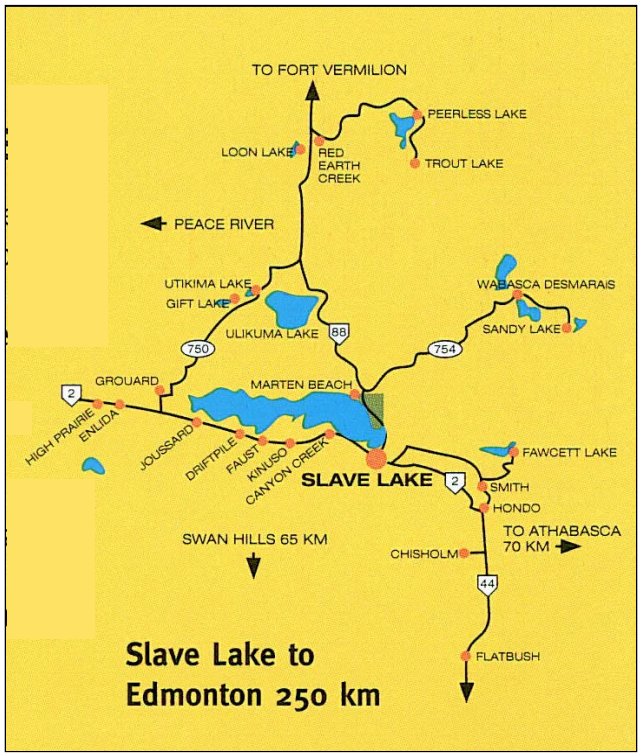
The purpose of this study is to review current and future growth trends and to identify recommended future urban growth areas for the Town of Slave Lake. A growth strategy will help to ensure that the Town's growth can be accommodated in an efficient and well planned manner by providing a context for land development and infrastructure decisions.

This study is not intended to establish Council's policy for future growth, but will be used as input to the Town's Municipal Development Plan, future joint planning initiatives with neighbouring jurisdictions and, if appropriate, future possible boundary adjustments.

1.2 Regional Context

Historically known as the place "where trails meet", Slave Lake was the gateway to the Yukon's Klondike gold rush and the stopping-off point for homesteaders heading to the northern Peace region. Today, situated on major highway, railway and pipeline routes 250 kilometers northwest of Edmonton, Slave Lake continues to be a natural hub of industrial and commercial development. Approaching a population of 7,000 (Slave Lake's population was 6,600 according to 2001 StatsCanada figures, with over 140 housing starts since that time), Slave Lake has the fifth largest population base of any Alberta municipality north of Edmonton, and functions as a regional trade and service centre for surrounding communities and businesses serving north-central Alberta. The Town is surrounded by the Municipal

Figure 1.1
Town of Slave Lake
Regional Context



District of Lesser Slave River and is situated at the southeastern tip of Lesser Slave Lake, the largest lake entirely within Alberta's boundaries – 108 kilometers long by 19 kilometers wide.

The Town is strategically located relative to transportation networks. Highway 2 is a major transportation corridor linking central Alberta to Grande Prairie, Peace River, Alaska, British Columbia, southern Alberta and the Northwest Territories. Highway 88, originating in Slave Lake at Highway 2 and going north, services large volumes of traffic traveling north and northeast of Slave Lake. It is used extensively for oil and gas, forestry, tourism and recreational purposes. This route will eventually connect to the proposed east-west route between Fort McMurray and Peace River and has the potential to become a major connector route linking Slave Lake and central Alberta to northern Alberta.

Slave Lake's airport is located within the town limits, and is capable of handling most light aircraft including helicopters and small jets. The airport is home to several charter and helicopter service companies. It is also the air base utilized for the Lesser Slave Lake Wildfire Management Area, housing air tankers and water bombers throughout the summer. Slave Lake's rail line is an important link to northern Alberta for forest products, grain, chemicals, fuel oil, and industrial products. Serviced by Canadian National Railway, there is daily freight service connecting Edmonton, Smith, and Peace River. Local freight service is offered on a regular basis from McLennan to Smith, serving customers at High Prairie and Slave Lake.

1.3 Existing Plans and Policies

Council Approved Strategies

The Council of the Town of Slave Lake developed a Council Strategic Plan 2006-2007 which includes eight priority goals for the growth and development of the Town:

1. Slave Lake will have the planning and processes in place for long-term, sustainable, managed growth.
2. Slave Lake will have a long-term infrastructure plan, linked to the capital budget and supported by organizational systems.
3. Slave Lake will have increased housing capacity to provide accommodations for a growing community and workforce.
4. Slave Lake will be pro-active in working together to minimize the impact of substance abuse on the health and safety of the community.
5. Slave Lake will provide a building that will accommodate the administrative requirements of the Municipality for the next 20 years.
6. Slave Lake will provide for the immediate and long-term recreational/leisure and cultural needs of the community.

7. Slave Lake will improve organization sustainability.
8. Slave Lake will have sound, consistent, administrative systems with attention to 'best practices' and optimum use of technology.
9. Slave Lake will provide a safe water intake, maintaining a good quality water supply to the community.
10. Slave Lake will review its Downtown and Main Street area plan.

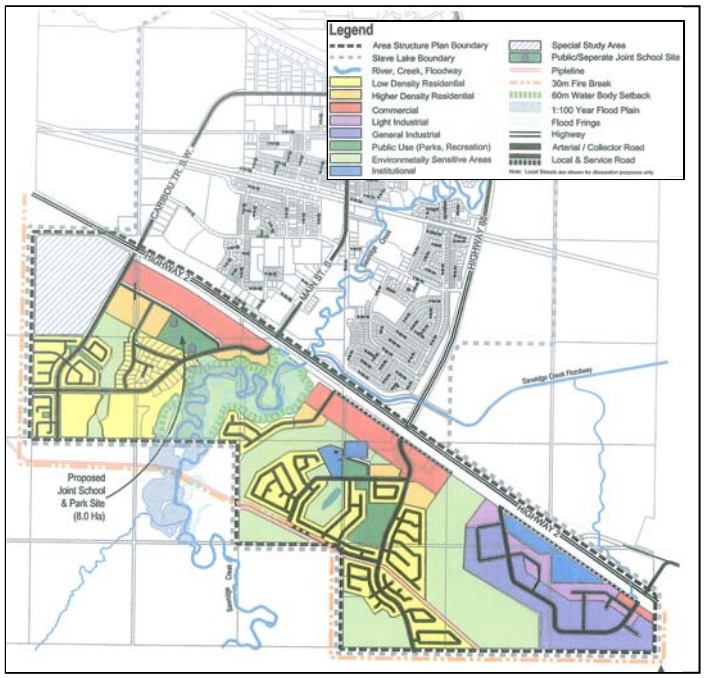
Municipal Development Plan

The Town of Slave Lake adopted its existing Municipal Development Plan (MDP) in 1997. The MDP governs overall growth and development in the community and establishes policies governing land use planning, transportation, and other infrastructure and community development.

South Expansion Area Structure Plan

The revised South Expansion Area Structure Plan (ASP), adopted May 2004, provides for the staged development of lands south of Highway 2. This area encompasses approximately 1500 acres (607 ha), and provides for residential, industrial, commercial, and institutional development, as well as for parks and recreation, and protection of environmentally sensitive areas.

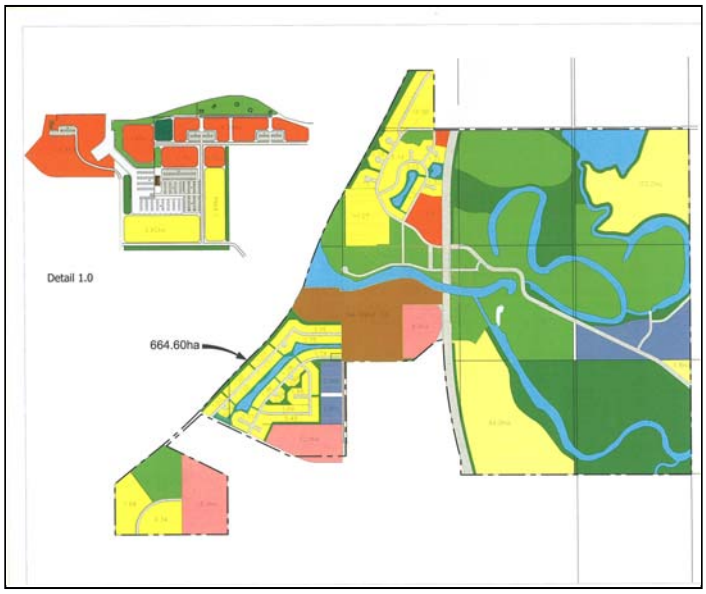
Figure 1.2
Town of Slave Lake
South Expansion ASP Development Concept



Waterfront Joint Intermunicipal Area Structure Plan

Planning is underway to develop a Joint Intermunicipal Area Structure Plan for 1455 acres (589 ha) along the waterfront of Lesser Slave Lake from just south of the airport extending to north of the Lesser Slave River.

Figure 1.3
Town of Slave Lake
Waterfront Joint Intermunicipal ASP Development Concept



Workshops and information sessions are currently underway, with an anticipated approval of the Joint Intermunicipal Area Structure Plan by both the Town and the M.D. Councils prior to year-end 2006.

Strategically located relative to the oil and gas and forestry industries, and with strong transportation connections within the region, business activity within Slave Lake and the surrounding region is at an all-time high.

1.4 Economic Growth

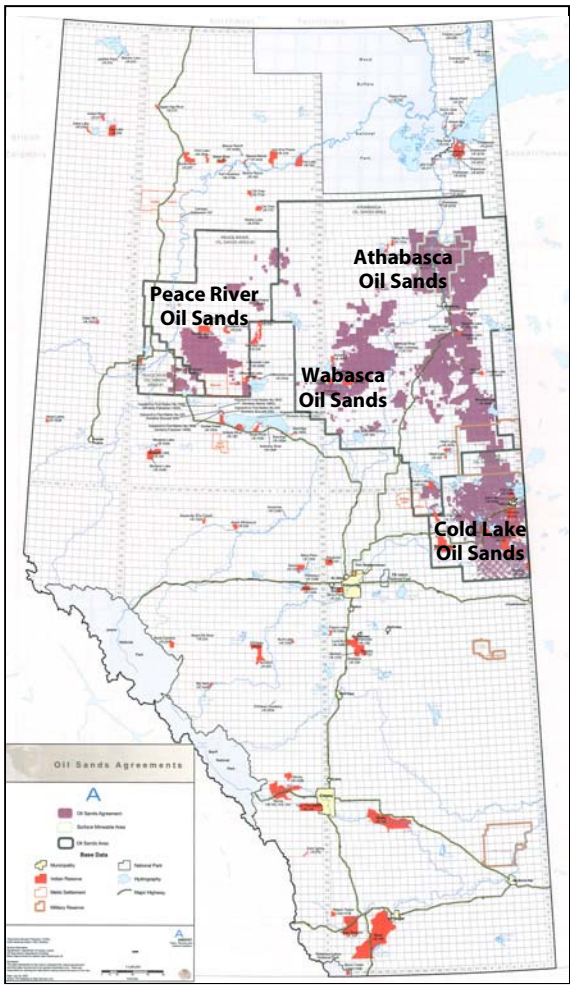
Similar to many communities in Alberta, the Town of Slave Lake is experiencing a strong economic growth period. Strategically located relative to the oil and gas and forestry industries, and with strong transportation connections within the region, business activity within Slave Lake and the surrounding region is at an all-time high. Slave Lake's abundant natural resources are also helping tourism become a stronger contributor to the local economy, as the area becomes known for its eco-tourism opportunities.

Oil & Gas

The area around Slave Lake has been productive for oil and gas exploration since the initial discovery in the 1960's, and is becoming increasingly known for its oil sands exploration. The Alberta oil sands are one of the world's largest oil deposits, second only to Saudi Arabian reserves – as many as 300 billion recoverable barrels and another trillion-plus barrels that could one day be within reach using new retrieval methods. Alberta's oil sands are abundant, accessible, and increasingly affordable sources of crude oil. With the continuing decline of conventional North American crude oil reserves, the focus is turning more towards oil sands exploration,

development and production. Alberta's oil sands industry is the result of multi-billion dollar investments in infrastructure and technology required to develop the non-conventional resource. In the last five years alone, the industry has allocated $24.7 billion towards oil sands development.

Figure 1.4
Alberta Oil Sands



The flow of oil extracted from Alberta's oil sands surpassed one million barrels a day at the end of 2003, and it is expected to double to two million barrels by 2010, matching the output of significant members of the Organization of Petroleum Exporting Countries such as Libya and Indonesia. According to the Athabasca Regional Issues Working Group, an organization representing energy companies, some $21 billion in oil-sands investments are planned over the next decade. The Alberta oil sands currently account for approximately one-half of Canada's total crude output and 10 per cent of North American production. It is predicted that the oil sands will create tens of thousands of new jobs across Canada by 2012.

The Grosmont formation is estimated to hold 300 billion barrels of oil, which if recoverable, would be higher than Saudi Arabia's current reserves of 259 billion barrels.

Alberta's vast oil sands cover approximately 54,363 square miles within three main regions: Athabasca/Wabasca, Cold Lake, and Peace River. The Town of Slave Lake is situated strategically on the southwestern edge of the Wabasca oil sands, which are currently estimated to exceed 54 billion barrels. Several companies are active in the Wabasca region, including EnCana Energy, CNRL, Strata Oil & Gas, Blackrock Ventures and Shell Canada. Shell Canada recently announced a $465 million oil sands land acquisition in the Wabasca area. The size of the deal is impressive and makes for one of the largest lease sales in recent history. Also of interest is that the formation they invested in, the Grosmont formation, is an almost untouched area of oil sands, with no proven technology to develop the resource. The Grosmont formation is estimated to hold 300 billion barrels of oil, which if recoverable, would be higher than Saudi Arabia's current reserves of 259 billion barrels. Shell has recently developed an experimental technology for the oil shale formations of Colorado, a technology that it is predicted they will use to access the oil reserves in the Grosmont formation at Wabasca. This considerable growth potential in the

Wabasca oil sands could have significant implications for the growth and development of the Town of Slave Lake.

Other oil and gas companies operating within the region include Acclaim Energy, Husky Energy and Penn West Petroleum.

McLennan Upgrader

Peace River Oil (PRO) Upgrading Inc. announced in late 2005 that it successfully acquired the former anhydrous ammonia plant located just southeast of McLennan at Kathleen. Subject to environmental, economic and engineering evaluations, Bluesky Upgrading plans to convert the ammonia plant into an upgrader facility which processes and converts bitumen and or heavy oil into a higher valued-added crude oil for the refinery market. This new, multi-million dollar oil upgrader/diesel refinery facility is located 10 km south of McLennan and roughly 200 km west of Slave Lake. Anticipated to be operational by 2010, this facility will be a substantial boost to the local and regional economy**.** The site is ideally situated with close proximity to oil producers, pipelines, utilities and skilled labor.

Forestry

Tolko Industries Ltd. is a significant business operating in the Slave Lake area, employing approximately 140 people in the marketing and manufacturing of specialty forest products. Tolko employs another 100 contractors in harvest operations in the Slave Lake Forest Management Area. Tolko's Oriented Strand Board (OSB) Plant is located in the Mitsue Industrial Park, 8 km east of Slave Lake. The mill produces 240,000 board feet of OSB per year, with the feed stock being mostly aspen and poplar fiber.

Tolko has recently announced expansion plans for the Slave Lake OSB facility, with an estimated opening date of the modernized facility in the fall of 2007. This $200 million facility is anticipated to provide 130 direct jobs in the mill and up to an additional 130 contract jobs in the woodlands.

Tolko is committed to environmental sustainability in its business operations, acquiring ISO 14001 certification and Canadian Standards Association (CSA) certification. ISO 14001 is an International Standard designed to support environmental protection and prevention of pollution. Certification is achieved by the development of an Environmental Management system, which is audited by an independent third party. The intent of CSA certification is to practice sustainable forestry to meet the needs of the present without compromising the ability of future generations to meet their own needs. It integrates forest stewardship with the conservation of soil, air and water quality, wildlife and fish habitat, and visual aesthetics. A stakeholder group was formed to help develop the Sustainable Forest Management Plan, and the process incorporates continual public feedback to improve the plan.

Other forestry companies working within the area include West Fraser Timberand Vanderwell Contractors (1971) Ltd.

West Fraser Timber operates Slave Lake Pulp and Alberta Plywood Ltd. in the Mitsue Industrial Park, with approximately 260 employees. The woodlands department supplies approximately 1.2 million cubic meters of sustainable deciduous and coniferous timber to these facilities annually. The timber supply for these mills is located in the Slave Lake Pulp FMA to the south of Slave Lake and the Marten Hills joint FMA and Coniferous Timber Quota areas to the north and south of Slave Lake. In addition to mill employment, the woodlands operations seasonally employ 300-500 contract employees. The West Fraser Woodlands divisions are certified to ISO14001 – Environmental Management System and Sustainable Forest Initiative (SFI) standards.

Slave Lake Pulp produces approximately 220,000 Air Dry Metric Tonnes of Bleached Chemi-Thermal-Mechanical Pulp annually. Alberta Plywood Ltd., Slave Lake produces 285 MMSF 3/8" basis of veneer, 30 MMFBM lumber as well as chips, landscape ties and hog fuel.

West Fraser Timber Co Ltd. is an integrated Canadian forest products company producing lumber, wood chips, fibreboard, plywood, pulp, linerboard, kraft paper, and newsprint. The company directly employs approximately 6,900 in its operations through subsidiary companies and joint ventures owned directly or indirectly by the company's principal operating subsidiary West Fraser Mills.

Located just east of Slave Lake, Vanderwell Contractors has operated in the Slave Lake area for over 30 years, and is a privately held company owned by Bob Vanderwell. Vanderwell Contractors is a random-length dimension sawmill, with annual production of 500,000 cubic metres. With approximately 250 employees, Vanderwell exports about 65 per cent of its production to the United States, with 35 per cent sold domestically. Vanderwell is in the process of adding a third sawmill production line to the two that already exist.

Vanderwell Contractors are well known for their environmentally sustainable practices in the treatment of wood waste at their mills. Through considerable investment in researching the feasibility of making products from bark, such as panelboard, Vanderwell has achieved innovative and creative processes to utilize its wood waste. Some of the other initiatives undertaken by the Vanderwells to reduce wood waste include switching to thinner-kerf saws to reduce waste and increase recovery of marketable lumber, and selling shavings to fibreboard plants and pelletized fuel plants.

ATCO

ATCO has three companies operating in the Slave Lake area: ATCO Midstream, ATCO Electric, and ATCO Gas. ATCO Midstream owns the Widewater Gas Plant, just west of town, and associated gathering and transportation pipelines. This facility is supervised by an employee based in St. Albert. ATCO Electric provides the safe delivery of electrical power to the residents of Slave Lake, and has approximately 62 employees. ATCO Gas has the franchise agreement with the Town of Slave Lake to deliver natural gas to residents, and has three employees.

Mitsue Industrial Park

The Mistue Industrial park is located 8 km east of the Town of Slave Lake in the Municipal District of Lesser Slave River. This park is a major industrial subdivison incuding four wood processing facilities, two gas plants, and a waste/product management service for oilfield services. The park employs approximately 2,000 people.

Tourism

Rapidly gaining distinction as Alberta's northern playground, the area around Lesser Slave Lake has seen the number of visitors increase annually. Lesser Slave Lake is the largest automobile-accessible lake in Alberta, and is well known for its world-class fishing, kayak/canoe adventures and other water recreation activities, camping, hiking and other outdoor recreation and education activities. There are also three other lakes within close proximity to Slave Lake – Fawcett Lake, Lawrence Lake and Cross Lake – providing fishing, camping and boating opportunities.

Lesser Slave Lake is also gaining popularity as an eco-tourism destination. Eco-tourism is a segment of sustainable tourism that offers experiences that enable visitors to discover natural areas while preserving their integrity, and to understand, through interpretation and education, the natural and cultural sense of place. It fosters respect towards the environment, reflects sustainable business practices, creates socio-economic benefits for communities/regions, and recognizes and respects local and indigenous cultures, traditions and values.

The natural features of the Slave Lake area make it ideally suited for eco-tourism.

The natural features of the Slave Lake area make it ideally suited for eco-tourism. Interpretive tours, aboriginal cultural packages and eco-tourism packages are becoming increasingly popular among locals and newcomers to the area. Slave Lake's increasing eco-tourism industry is providing the opportunity to increase awareness, protection and enjoyment of the significant natural beauty of the area, as well as to help the Town diversify the local economy.

Also located in the area is the recently completed state-of-the-art Boreal Centre for Bird Conservation, Canada's northernmost bird observatory. This centre is both a research and education facility, featuring interactive exhibits, educational programming, and bird-watching tours.

Another new addition in Slave Lake is the recently opened Visitor Information Centre which houses Big Lake Country Tourism, Travel Alberta North, and other visitor services. This facility provides more opportunity for cooperation, exposure, and enhancement of services with regard to regional tourism.

The Town of Slave Lake is quickly becoming a regional hub for many communities in northern Alberta . . . .

Regional Trade and Service Centre

The Town of Slave Lake is quickly becoming a regional hub for many communities in northern Alberta given its centralized location for the oil and gas and forestry industries, and its location on a major transportation corridor out of Edmonton.

Slave Lake is making the most of its abundant natural resource setting and the creative energy of its citizens. With a population approaching 7,000 and a trading area of some 28,000, this gateway to the natural wealth of northern Alberta is continuing to attract diverse development. Slave Lake is actively encouraging the diversification of businesses in the Town including tourism, manufacturing and value-added sectors, as well as increased services in the areas of health, education, finance, government and transportation. Given the broad range of goods and services available within the Town, Slave Lake will increasingly become a natural business, recreation and education hub for the region.

- **Retail**

The future growth potential of the area is reflected in the recent opening of a retail power centre with tenants including Wal-Mart, Canadian Tire, Sobeys and Tim Hortons. Best Western Hotels has also recently opened a new hotel in close proximity to the power center. Slave Lake's downtown is beginning to see some revitalization with several new stores opening up in the area.

- **Health Services**

Slave Lake recently became home to the new Slave Lake Health Complex providing the community and surrounding areas with a full acute-care (25 beds) and long-term care (19 beds) facility. Also located in the health complex is a recently installed six-station renal dialysis unit with telehealth video conferencing capabilities. Air ambulance services are provided 24 hours a day, 7 days week to residents of Slave Lake and the surrounding region.

Slave Lake provides a wide range of community health services including home care, early childhood development, mental health, occupational, physical, and respiratory therapy, and speech language pathology. There is a variety of other community programming available including adult and seniors programming, community supports, and prenatal services. In addition to the health complex, Slave Lake has several medical clinics and a number of health care professionals including chiropractors, dentists, optometrists, and psychologists.

- **Government Service Center**

Plans are underway to renovate a portion of the Sawridge Mall for a new local and provincial government complex. This $26 M project will also include a regional library, in the approximately 82 thousand square foot complex. The Town of Slave Lake will start construction of the new provincial-municipal building at the Sawridge Mall site in spring 2008.

- **Schools and Educational Services**

Slave Lake has a number of schools including public, Catholic, Christian and outreach, and a wide variety of educational programming. Slave Lake's Northern Lakes College provides a broad range of learning opportunities for adults, including both local and long-distance learning . The student population encompasses people pursuing career training, finishing high school, or undertaking college diplomas or university studies; people who are employed but seeking skill enhancement; and people wishing to improve their quality of life through non-credit enrichment courses. The Northern Lakes College has established partnerships with local First Nations and Métis Settlements, business and industry, and other educational institutions which ensure that programming is relevant to the needs of the local community.

- **Sawridge First Nations and Sawridge Group of Companies**

The Sawridge First Nations have Reserves to the east and west of the Town of Slave Lake. The Reserves immediately to the east of the Town are home to approximately 100 people and also accommodate commercial development along the east side of Highway 88. The Sawridge First Nations have short-term plans to renovate and expand that commercial development and, in the long term, may consider further residential development to the east of the Town. One issue in this area is that future development on certain Reserve lands east of the Town will be constrained by setbacks from the Town's sewage treatment lagoons.

The First Nations residents on the Sawridge Reserves to the east of the Town enjoy 100% employment. Nonetheless, this population is seeking to upgrade its employment skills and opportunities in the region.

The Sawridge Group of Companies has owned and operated the Sawridge Hotel and Sawridge Mall since the 1980s. The north half of the Sawridge Mall is to become the site of the new municipal and provincial offices and civic complex. The Sawridge Group of Companies also owns undeveloped land on approximately 40 acres in the southwest part of the Town, about 100 acres to the west of the Town on the south side of Highway 2, and some developed land within the Mitsue Industrial Park.

- **East-West Highway**

The provincial government is in the process of developing a northern economic development strategy, of which a major focus will be a highway that will parallel the Gateway Pipeline Project to the west coast. Once this highway is complete, western Canada will benefit from increased access to markets in both the United States and Asia.

1.5 Unsustainable Tax Base

While Slave Lake's economy is strong and development within the Town is increasing at significant rates, the revenues associated with the Town's expanding municipal assessment base are insufficient for the Town to maintain and upgrade basic infrastructure and community services. This is due in part to a relative imbalance in the Town's assessment base. In other words, the tax revenues from the Town's residential development do not generally offset the costs of community services that Town residents enjoy. The Town of Slave Lake does generate property tax revenue from existing commercial and light industrial development (oil and gas service, light manufacturing, warehouse, and distribution businesses in addition to retail and office development), but the revenues from that non-residential assessment do not make up the shortfall related to the preponderance of residential development within the Town.

It is well established that "residential development does not pay for itself."[1] In fact, it is widely agreed that the "subsidization" of residential property development by commercial and industrial development achieves important public policy goals. Problems arise, however, when a municipality does not have enough non-residential assessment to cover the net deficit created when community services are provided for resident populations.

The proportion of the Town's total property tax revenue contributed through residential assessment was 64.5% in the year 2005. At the same time, a study by Alberta Municipal Affairs indicated that the median proportion for a group of similar Alberta municipalities was 55% of total property tax revenue contributed through residential assessment.[2] A proportionate increase in non-residential development in Slave Lake would help bring the Town's assessment balance more in line with the other municipalities included within that Provincial study.

Heavy industrial development, which generates substantially higher tax revenues than residential development, continues to grow in the Mitsue Industrial Park and other areas within the M.D. of Lesser Slave River. The Town acknowledges that Mitsue is the appropriate location for such industrial development and supports economic development within the M.D. and other parts of the region.

The Municipal District of Lesser Slave River and the Town of Slave Lake have effective municipal cost-sharing and revenue-sharing agreements in place, whereby the M.D. shares the costs of providing municipal services with the Town. A portion of the municipal assessment from the businesses operating within the M.D. is also shared with the Town of Slave Lake. The current revenue-sharing agreement provides for a transfer of 10% of the Growth in Assessments (difference between two assessment years) from the M.D. to the Town.

[1] Cost of Community Services (COCS) Study for Red Deer County. Miistakis Institute of the Rockies, 2006.
[2] Financial Advisory Services, Local Government Services Division, Alberta Municipal Affairs 2006.

Nonetheless, the industries operating outside the Town do not demand the same types or levels of services from their host municipalities as they do from the Town, which offers convenient access to goods and services, the full range of public infrastructure and community services, and housing for employees who work outside the Town. As a result, property tax mill rates within the Town can be higher than they are within other jurisdictions in the region. In order to address these issues, the Town will need to explore alternative infrastructure and service provision strategies while continuing to strike cooperative cost-sharing and revenue-sharing agreements with neighbouring jurisdictions.

1.6 Housing and Labor

Slave Lake's strong economy is having a significant impact on both the housing and labor markets in the region. There is strong demand for workers in the service, oil and gas, and forestry sectors, resulting in housing shortages and escalating housing prices in the region.

Residential development within the Town has seen strong growth with a 40% increase in new residential units over 2005. The Town is also in the midst of negotiations for development of several larger tracts of residential land.

Upcoming projects will include the remediation and redevelopment of an existing Brownfield site with three 4-storey condominium complexes. The site will include 13 residential (duplex) lots. The Town of Slave Lake is also in the planning stages of a residential development on 17 acres of land in the southwest area of the Town, adjacent to a 17 acre parcel of land in the M.D. that is also proposed for residential development. As well, a 4 storey apartment building is currently underway in the Town which will yield 83 affordable housing units. Development of these sites will alleviate much of the current pressure for available housing.

Presently there are approximately 450 hotel and motel rooms in Slave Lake. During periods of increased economic activity, those rooms are often booked for seasonal or temporary workers. To offset the lack of housing for employees, Noralta has set up a work camp just outside the Town. The Noralta Lodge offers 24-hour kitchens, private rooms and bathrooms, phones, internet access, televisions and recreational facilities. The 280-room lodge is located just west of Slave Lake, and is fully operational.



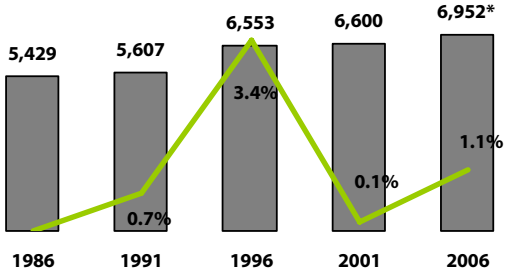

2.0 Population Forecasts and Land Requirements

2.1 Population Forecasts

Past Growth

Figure 2.1 illustrates population growth for the Town of Slave Lake since 1986. As shown in the graph, Slave Lake's population grew relatively slowly between 1986 -1991 at approximately 1% per year, followed by strong growth at over 3% per year in 1991-1996, with little growth between 1996-2001, followed by steady growth at over 1% per year for the most recent five year period, 2001-2006.

Figure 2.1
Town of Slave Lake
Historical Population 1986-2006

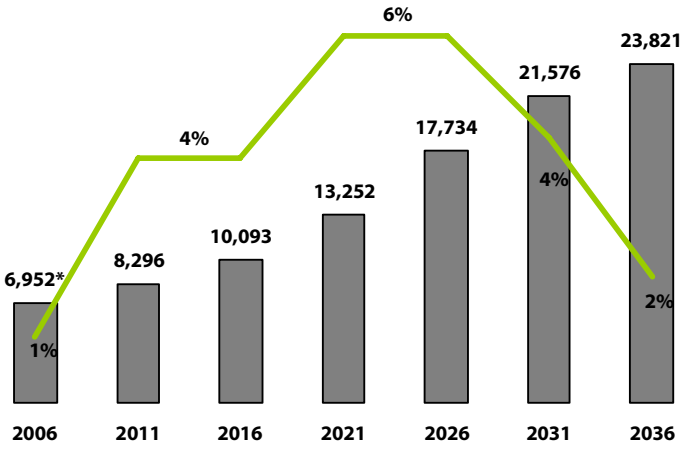


**2006 projected population is based on 2001 StatsCan data plus housing starts since 2001 multiplied by 2.5 ppu*
1986-2001 Source: Statistics Canada

Future Growth

Given the strong economic growth potential for this region, the Town of Slave Lake is anticipated to experience strong growth over the forecast period 2006-2036. Figure 2.2, Future Projected Population 2006-2036, provides for a growth rate of 4% steadily increasing to 6% by the 15 year horizon, then gradually declining to 2% by the end of the 30 year period. Modest annual growth in recent years is expected to increase due to the Town's location adjacent to the oil sands and potential as a regional hub. This growth projection anticipates the Town's population increasing by roughly 17,000 over the next 30 years to a total population of 23,821 by 2036.

Figure 2.2
Town of Slave Lake
Future Projected Population 2006-2036



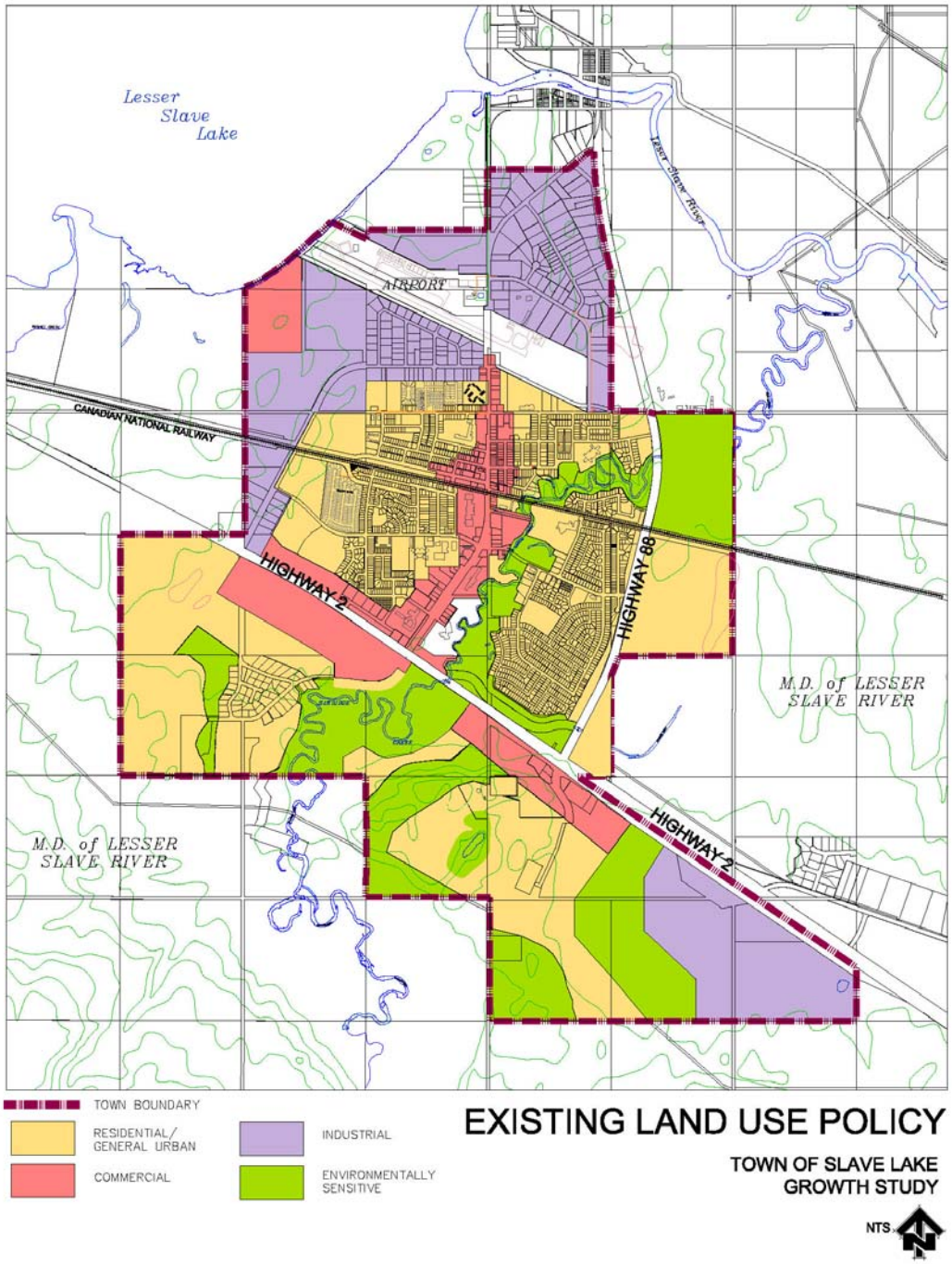
**2006 projected population is based on 2001 StatsCan data plus housing starts since 2001 multiplied by 2.5 ppu*

SLAVE LAKE 2035
Working Together for a Sustainable Future

2.2 Existing Land Inventory

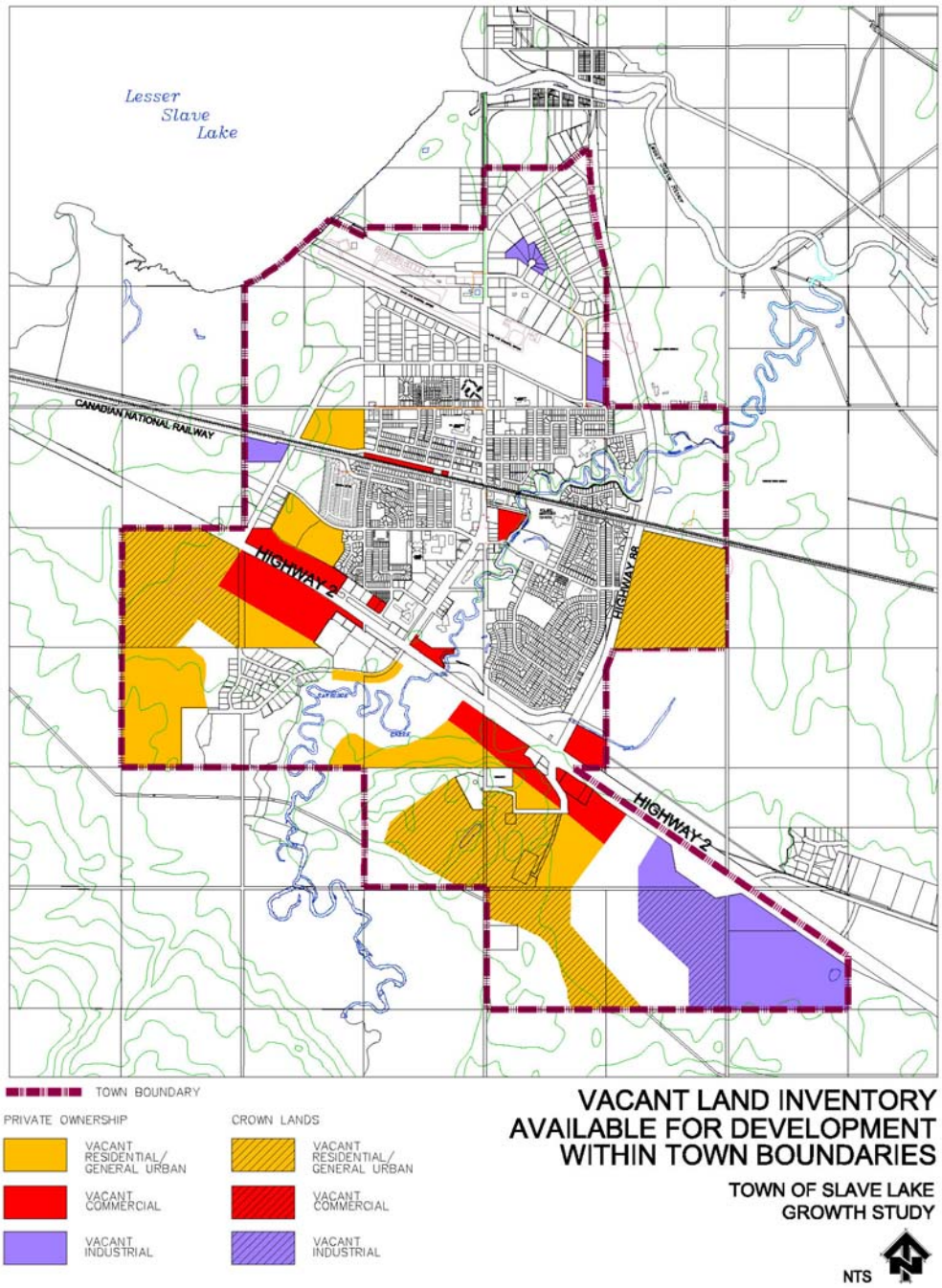
An analysis of approved land use policy and an inventory of vacant developable land was undertaken to determine the build-out capacity of the remaining vacant lands with the Town boundary. Figure 2.3 identifies generalized existing land use policy for the Town of Slave Lake based on the Municpal Development Plan and the South Expansion Area Structure Plan.

Figure 2.3
Town of Slave Lake Existing Land Use Policy



Existing vacant lands are identified in Figure 2.4 and Table 2.1. There are currently 605 acres of privately owned vacant developable land within the existing Town boundaries and 549 acres of Crown-owned vacant developable land, totalling 1,154 acres of vacant developable land within the Town boundary.

Figure 2.4
Town of Slave Lake Vacant Land Inventory



For the purposes of this study, "vacant developable land" includes lands that have variable potential for urban development and servicing. Certain lands identified as "vacant developable land" are encumbered by serious development constraints, such as high water table to the east of Highway 88 and lands surrounding an abandoned landfill within the South Expansion Area Structure Plan. In the case of the abandoned landfill, lands within 300 metres of the landfill site shall not be developed unless or until all materials in the abandoned landfill are completely removed and relocated to another landfill site. Certain measures to remediate or mitigate development constraints, such as filling waterlogged lands or removing landfill, may be cost-prohibitive. Consequently, not all lands shown on Figure 2.4 or included in Table 2.1 may be considered economically developable, even though technically they may be engineered to accommodate urban servicing and development.

Table 2.1 identifies the vacant and developed land within the Town of Slave Lake. There is currently just over 1,500 acres of developed land within the Town. This developed land represents roughly 200 acres per 1,000 population (1,536/6,600*1000).

Of the approximately 1,150 acres of vacant land within the Town's boundaries, a substantial amount is dedicated for residential/general urban land (741 acres), with 413 acres remaining for commercial/industrial land uses. Due to development constraints, market inefficiencies, and the need to provide services as efficiently as possible, the Town acknowledges that not all the vacant developable land currently within its boundaries will be developed before more suitable lands within the M.D. are developed.

Table 2.1
Town of Slave Lake
Summary of Vacant / Developed Land

Category	Vacant		Developed		Total	
	Ha.	Ac.	Ha.	Ac.	Ha.	Ac.
Commercial / Industrial	167	413	320	793	488	1,206
Residential / General Urban	300	741	300	743	600	1,484
Major Highways					59	145
Environmentally Sensitive Areas					292	722
College					8	19
Airport					65	162
Total Area within Town boundary	467	1,154	620	1,536	1,512	3,738

2.3 Land Requirements

2.3.1 Assumptions

In order to identify the amount of land required to accommodate forecast future growth, certain assumptions have been made about the form and type of future

development. These assumptions are based on the Town of Slave Lake Municipal Development Plan policies, typical standards of service provision in urban centers, and judgements about the Town's ability to attract non-residential land uses within a competitive regional market. These assumptions are identified in Table 2.2.

Table 2.2
Town of Slave Lake
Assumptions for Land Requirements 2006-2036

Residential	Average household size of 2.5 persons Average density of 5.0 units per gross developable acre *These assumptions are consistent with the South Expansion ASP. They include local parks, schools, roads, convenience retail and other land uses normally found within a residential neighborhood.
Commercial / Industrial	Provides for 45 acres of clean commercial and industrial land for each 1000 persons of new growth. This compares with an existing rate of commercial/industrial land provision of approximately 100 acres per 1000 people in the Town of Slave Lake. Similar to development trends across the country, it is anticipated that future industrial, commercial and residential development in the Town will reflect a more intensive/efficient use of land.
Other land uses	This study adds 20% of the calculated residential, industrial, and commercial lands to accommodate a broad range of other land uses including institutional, freeways, regional parks, vacancy, and land held off the market and unavailable for development at any particular time.

2.3.2 Total Land Requirements

Table 2.3 Summary of Land Requirements 2006-2036 identifies the amount of land that would be required within the Town based on forecasted population growth. While the current developed area within the Town represents roughly 200 acres per 1,000 population, it is assumed that future growth will average roughly 150 acres per 1,000 population as it increases in density and land efficiency.

The total amount of land required to accommodate projected 30 year population growth will be roughly 16 quarter sections or 2,500 acres. The Town currently has 1,154 acres of vacant land, bringing the total additional land required to accommodate 30 year growth to 9 quarter sections or 1,400 acres. Approximately 3 quarter sections will be required in the ten year period 2016-2026, and 6 quarter sections in the next ten year period 2026-2036.

2.3.3 Land Requirements by Type

Residential

The Town of Slave Lake has just over 4 quarter sections of existing vacant residential land within its boundary (741 acres). This should be sufficient to accommodate residential development within the Town for the next 10 years (this also includes

other general urban land uses at 20%). Beyond 2016, the Town will need an additional 6.5 quarter sections (1,030 acres) to accommodate residential growth out to 2036.

Commercial / Industrial

The Town of Slave Lake should have a sufficient supply of vacant commercial/ industrial land within its boundaries (413 acres) to accommodate commercial/ industrial development within the Town for the next 10 years. Beyond 2016, the Town will need an additional 2.5 quarter sections (343 acres) to accommodate commercial/industrial growth out to 2036.

Table 2.3
Town of Slave Lake
Summary of Land Requirements 2006-2036

	2006-2016	2016-2026	2026-2036	**30 Year Total**
Population Growth	**3,141**	**7,641**	**6,087**	**16,869**
Cumulative Total	**3,141**	**10,782**	**16,869**	**16,869**
New Household / Units (at 2.5 ppu)	**1,256**	**3,056**	**2,435**	**6,748**
Land Requirements				
Residential Acres (at 5.0 upgda)[1]	251	611	487	1,350
Cumulative Total (acres)	251	863	1,350	1,350
Commercial / Industrial Acres (at 45 ac/1000)[2]	141	344	274	759
Cumulative Total (acres)	141	485	759	759
Subtotal	393	955	761	2,109
Cumulative Total (acres)	393	1,348	2,109	2,109
Other Land Uses (at 20%)	79	191	152	422
Cumulative Total (acres)	79	270	422	422
Total Land Requirement (Cumulative)	**471**	**1,617**	**2,530**	**2,530**
Acres per 1,000 population growth	150	150	150	150
Existing Land Supply				**1154**
Additional Land Requirement (Annexation)				**1,376**
Additional 1/4 Sections (at 160 acres)				**9**

[1] Residential acres are based on 5.0 units per gross developable acre, as in the South Expansion ASP.
[2] Industrial acres are estimated at 40 acres per 1000 population, and commercial acres are estimated at 5 acres per 1000 population.

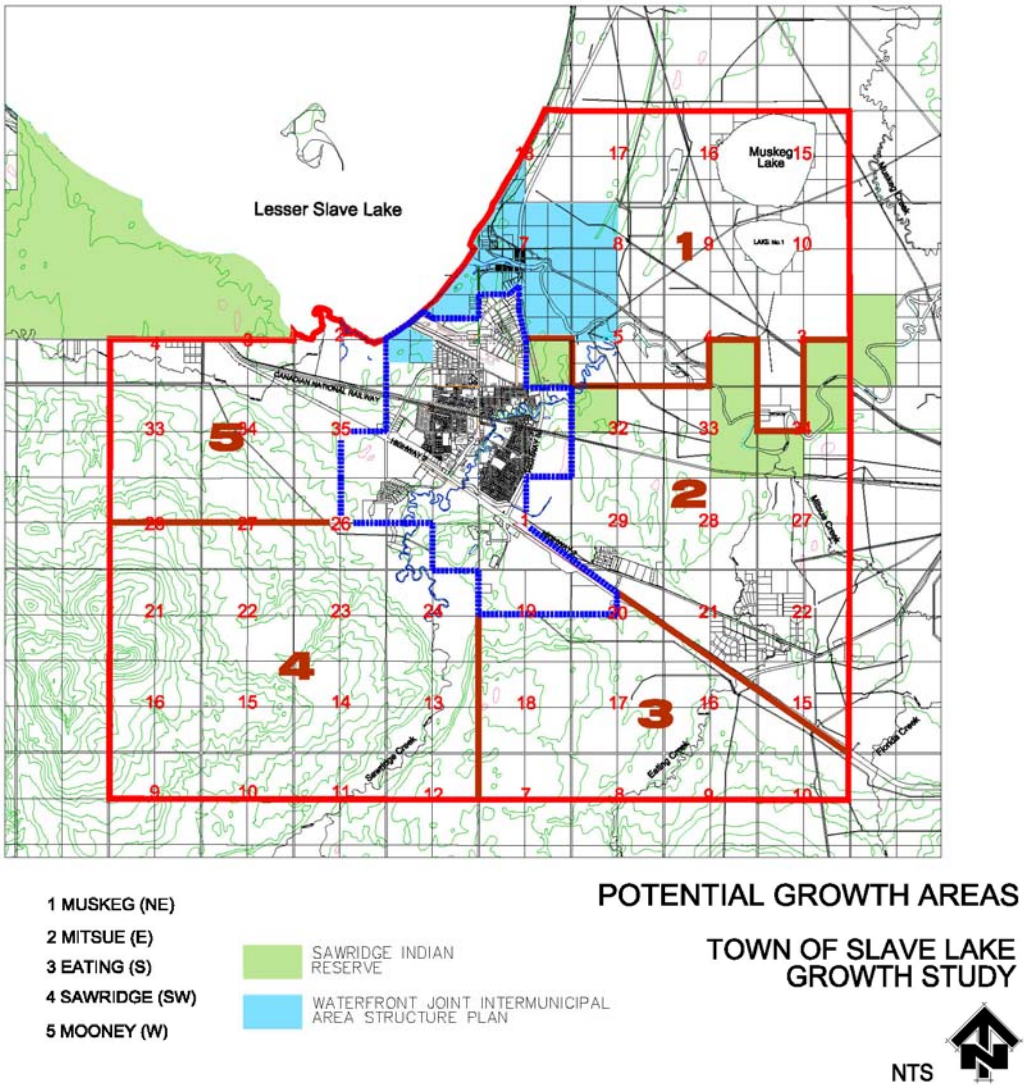



3.0 Recommended Growth Strategy

3.1 Potential Growth Areas

Figure 3.1 shows the areas surrounding the Town that may be suitable for future growth. Future growth requirements for the Town consist of a minimum 6.5 quarter sections for residential land use and 2.5 quarter sections for commercial and industrial land use. The map in Figure 3.1 has been used as the basis for a comparative analysis of potential growth areas and suitability for development. It is recommended that this information be used to initiate discussions of future urban growth with Town residents and intermunicipal neighbours.

Figure 3.1
Town of Slave Lake
Potential Growth Areas



3.2 Environmentally Sensitive Lands

Environmentally sensitive lands can be found both within and outside the Town boundaries. The environmentally sensitive lands addressed in this report include both areas considered as significant natural habitat (streams, important woodlands, sensitive wetlands) and areas considered as hazardous for development (unstable slopes, lands subject to inundation, water bodies, or areas with high water table, which would qualify as Environmental Reserve under the Municipal Government Act). There can be significant overlap in these types of environmentally sensitive areas; however, this report differentiates between the two types in terms of the predominant characteristics of each area.

Natural Areas within the Town

Environmentally sensitive areas within the Town are shown in Figure 2.3 Town of Slave Lake Existing Land Use Policy. The most significant natural habitat areas within the Town include the valleys of Sawridge Creek and its tributaries. These protected areas have been incorporated into the Town's pathway system. The southern end of the Sawridge Creek valley also contains some important wetlands, which provide habitat and help to maintain water quality in the creek through precipitation of sediments and biofiltration of stormwater.

Hazardous Areas within the Town

Significant hazardous areas within the Town include the natural areas noted above, high water table to the east and west, unstable slopes to the south, and two areas where site contamination issues require mitigation: the lands surrounding the Town's sewage lagoons and the area around an old landfill site in the South Expansion Area Structure Plan.

Development to the west of the Town's sewage lagoons is protected by standard setbacks required by Alberta Environment, so the hazardous impacts of those lagoons are considered mitigated. The old landfill site in the South Expansion Area Structure Plan does, however, require reclamation before Alberta Environment will allow any development within the standard setbacks surrounding the landfill area. Subject to adequate financial and technical assistance, the Town is prepared to reclaim the old landfill site so that a larger area of vacant land within the Town can be considered suitable for development.

Natural Areas outside the Town

Environmentally sensitive areas within the Town boundaries are natural extensions from systems outside the Town boundaries. The Lesser Slave Lake region contains

natural habitat areas of continental significance, as recognized by establishment of numerous protected areas and the Boreal Centre for Bird Conservation. Closest to the Town, the most significant natural habitat includes Sawridge Creek and its tributaries. The southern end of the Sawridge Creek valley contains important wetlands, which provide habitat and help to maintain water quality in the creek through precipitation of sediments and biofiltration of stormwater.

Hazardous Areas outside the Town

Significant hazardous areas outside the Town extend outward from the areas noted above and include high water table to the east and west, unstable slopes to the south. More detailed information on those development constraints is provided in Attachment 2 • Engineering Servicing Review.

3.3 Utility Servicing Considerations

Certain lands outside the current Town boundaries are readily serviceable. The Engineering Servicing Review in Attachment 2 concludes that the most suitable lands outside the Town for municipal servicing of urban development are found within two areas shown in Figure 3.1: Area 3 • Eating Creek and Area 4 • Sawridge Creek. More detailed information on the servicing opportunities and constraints within these two areas outside the Town is provided in Attachment 2 • Engineering Servicing Review.

3.4 Transportation

The Town of Slave Lake is well serviced by regional transportation infrastructure, with access to Highways 2 and 88, the CNR and the airport. The Town's internal road network is considered adequate for servicing current development and future redevelopment, although any significant redevelopment should be subject to Transportation Impact Assessments (TIAs).

Notwithstanding the adequacy of the Town's internal road network, environmental conditions typical of northern communities present significant challenges to roadway maintenance. The primary challenge is the generally high water table. Stormwater flows, annual freezing and thawing cycles, and soil instability all contribute to high roadway maintenance costs. The Town will need to continue pursuing cost-effective, innovative, and sustainable approaches to roadway maintenance as Slave Lake grows. Particular reference should be made to alternative roadway materials and surfaces.

Planning of future road networks, particularly where they connect existing development with new communities, will be critical in ensuring safe, logical, and

efficient transportation within and through the Town. For example, careful consideration will need to be given to emergency access, looping road systems, and road grades. Natural and hazardous areas should be scrupulously avoided to prevent the ice lensing, slumping, and washouts that have plagued other northern communities with environmental conditions similar to those in Slave Lake.

In addition to roadways, the Town's transportation infrastructure includes its significant pathway network and the potential for an appropriately designed public transit system. The trail network should be continually extended to areas of new development. Slave Lake's pathways serve all modes of non-motorized transportation, promoting an environmentally friendly alternative means of travel. Increased use of this system aids in the overall health of the community and may relieve potential traffic congestion. Planning of trail expansion should be coincident with road construction to ensure efficiencies in labor, material, energy, and cost. The Town of Slave Lake Parks Master Plan indicates that the Town's trail infrastructure needs to be extended as the community expands. The Parks Master Plan also establishes policies for incorporating trails with sidewalk construction and widening sidewalks to accommodate bicycles.

Cost-effective public transit can be provided in smaller communities. For example, the Town of Canmore has recently completed a transit feasibility study and is considering transit options that would be adapted to local needs. Routes, frequency of trips, and vehicles can be designed, managed, and procured to maximize efficiency and promote ridership. Transit stops can be incorporated into new development, especially for the purposes of providing shelter during inclement weather.

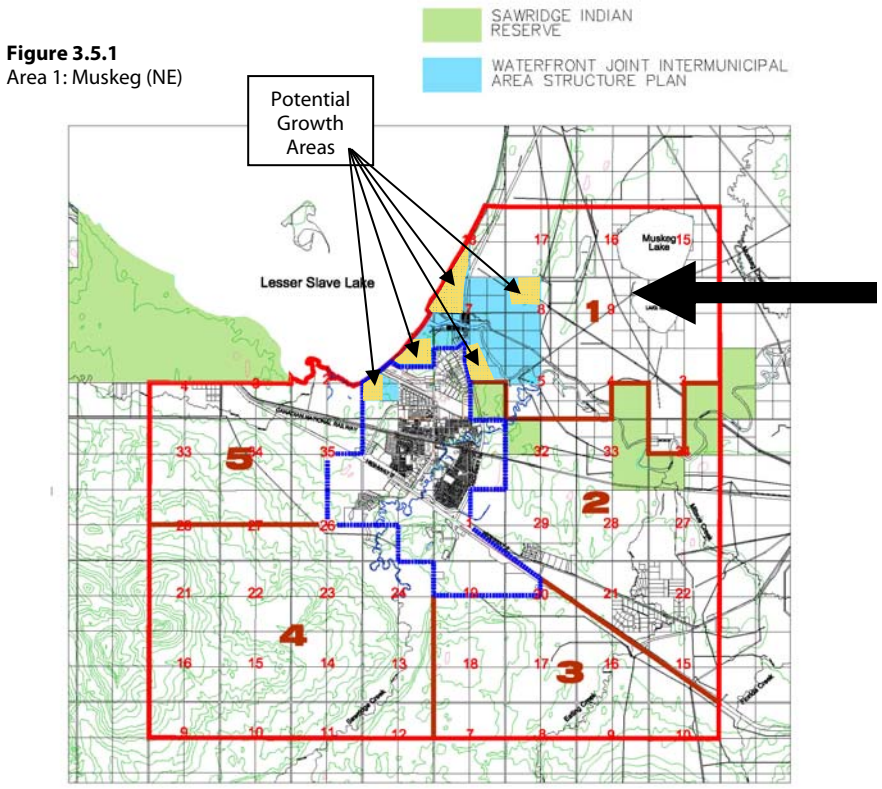
Public transit presents many opportunities to benefit the residents of Slave Lake, for trips both within and beyond the Town boundaries. Specially scheduled transit service could offer travel alternatives for many commuters employed at workplaces outside the Town. Transit service need not be provided exclusively by the municipality; many alternative operational scenarios are possible, particularly when partnerships with local taxi companies, regional bus lines, or school authorities are considered.

3.5 Evaluation of Growth Areas

This section provides a systematic evaluation of the potential growth areas identified in section 3.1, based upon a comparative analysis of the factors discussed in sections 3.2 Environmentally Sensitive Lands, 3.3 Utility Servicing Considerations, and 3.4 Transportation. Other factors examined in this comparative analysis include sectoral development patterns within the Town (i.e., those areas within the Town that correspond geographically to the respective growth areas outside the Town), current and historical development within growth areas outside the Town, statutory policy planning initiatives, and interjurisdictional considerations in relation to the Sawridge First Nations and the Municipal District of Lesser Slave River.

3.5.1 Area 1: Muskeg (NE)

Figure 3.5.1
Area 1: Muskeg (NE)



Area 1 is characterized by:

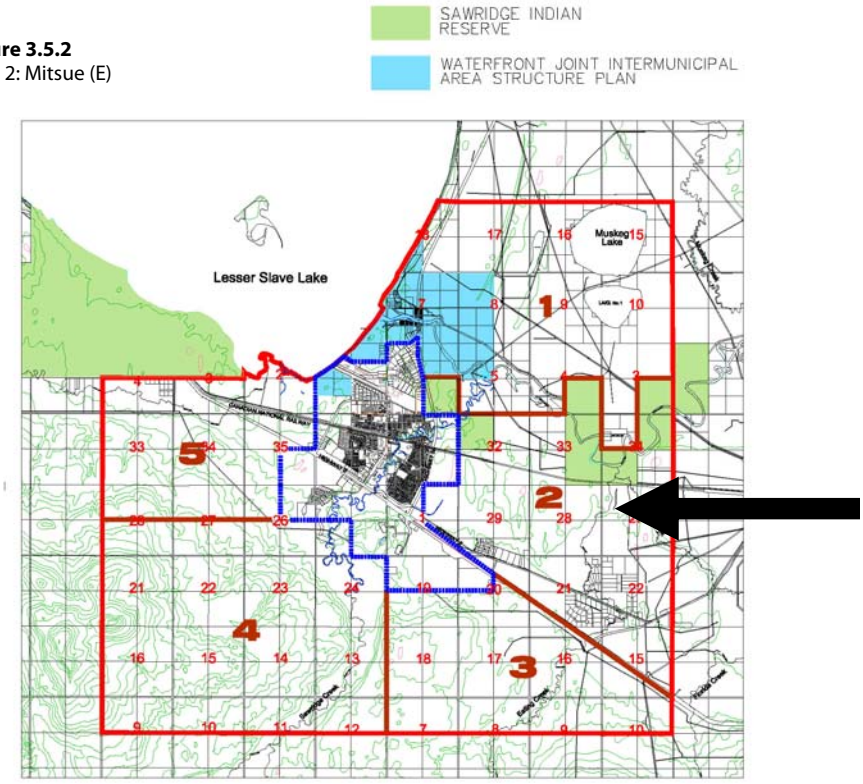
- a relatively large amount of environmentally sensitive lands and lands that are hazardous for development, including the Lesser Slave River, its tributaries, Muskeg Lake, other smaller water bodies, wetlands, high water table, and significant habitat for waterfowl and other riverine species
- utility servicing issues related to sandy and lacustrine soils, low-lying topography, and high water tables
- good transportation connections to the north, south and east of this growth area, on both sides of the Lesser Slave River, via established municipal roads and Highway 88
- sectoral development patterns within the Town that include the airport and commercial, service, and light industrial land uses
- current and historical development within the M.D. that includes mixed commercial and recreational uses near the eastern shores of Lesser Slave Lake and natural resource extraction further to the east
- the proposed Waterfront Joint Intermunicipal Area Structure Plan
- intermunicipal interest in development between the Town and the M.D.

Figure 3.5.1 shows the portions of Area 1 that may be suitable for future growth. Most of the significant growth opportunity within Area 1 is confined to the proposed Waterfront Joint Intermunicipal Area Structure Plan. Future growth potential for this area consists of approximately **3.0** quarter sections for a mix of residential, recreational and commercial land uses.

Growth Potential: MODERATE HIGH

3.5.2 Area 2: Mitsue (E)

Figure 3.5.2
Area 2: Mitsue (E)



Area 2 is characterized by:

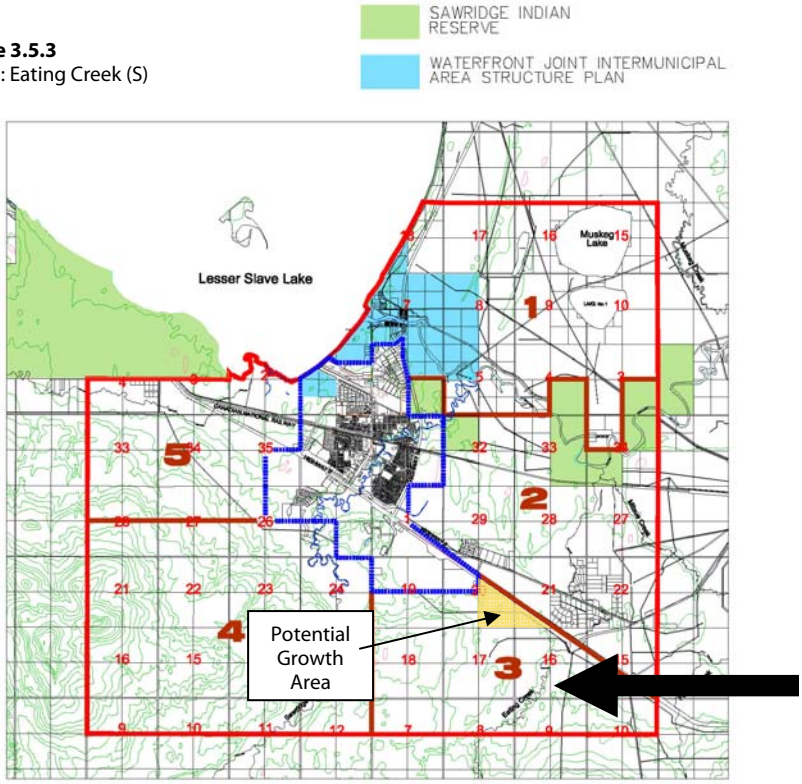
- a large amount of environmentally sensitive lands and lands that are hazardous for development, including the Lesser Slave River, Mitsue Creek, floodway and floodplain, wetlands, high water table, and significant habitat for waterfowl and other riverine species
- utility servicing issues related to unstable soils, low-lying topography, and high water tables
- good transportation connections to the east via municipal roads, Highway 2, and the Canadian National Railway
- sectoral development patterns within the Town that include residential and park uses
- current development within the M.D. that includes highway-oriented commercial and industrial uses with limited servicing
- a lack of statutory planning
- First Nations lands.

Area 2 is not considered to hold much potential for growth beyond a limited amount of highway-oriented or rail-oriented commercial and industrial development with limited servicing.

Growth Potential: LOW

3.5.3 Area 3: Eating Creek (S)

Figure 3.5.3
Area 3: Eating Creek (S)



Area 3 is characterized by:

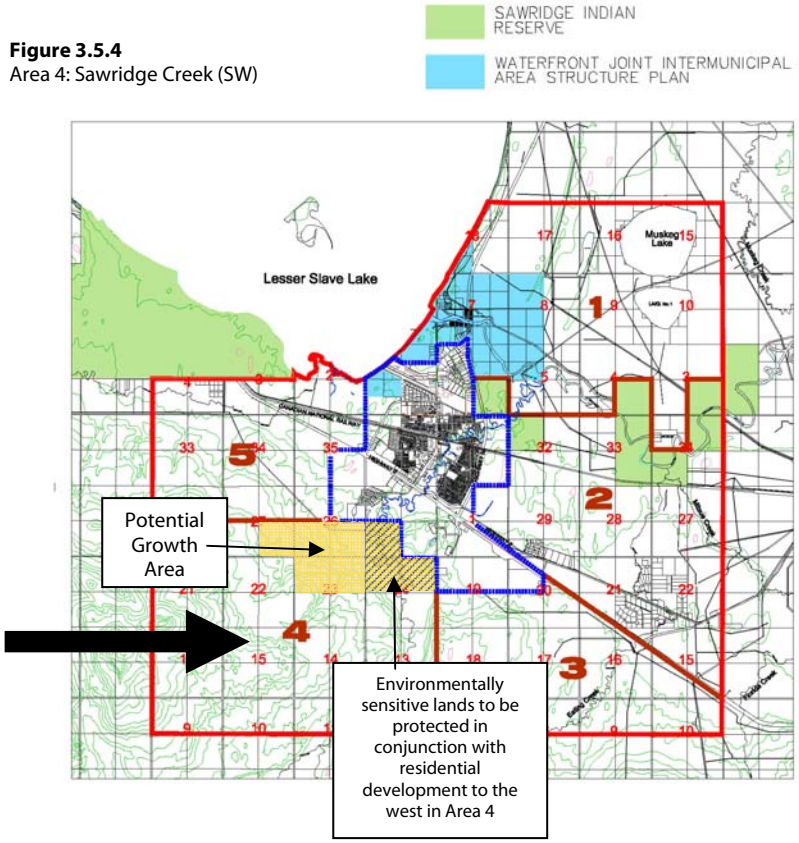
- a relatively small area of environmentally sensitive lands along Eating Creek with some developable uplands to the west
- moderate slopes that may be conducive to efficient sewer and water utility servicing
- reasonable transportation access via municipal roads to Highway 2
- sectoral development patterns within the Town that include commercial and residential uses
- no significant development within the M.D.
- a lack of statutory planning.

Figure 3.5.3 shows the portions of Area 3 that may be suitable for future growth. Most of the significant growth opportunity within Area 3 is located along the south side of Highway 2 and to the west of Eating Creek. Future growth potential for this area consists of at least **1.0** quarter section for residential land use and approximately **0.5** quarter section for commercial land use.

Growth Potential: MODERATE HIGH

3.5.4 Area 4: Sawridge Creek (SW)

Figure 3.5.4
Area 4: Sawridge Creek (SW)



Area 4 is characterized by:

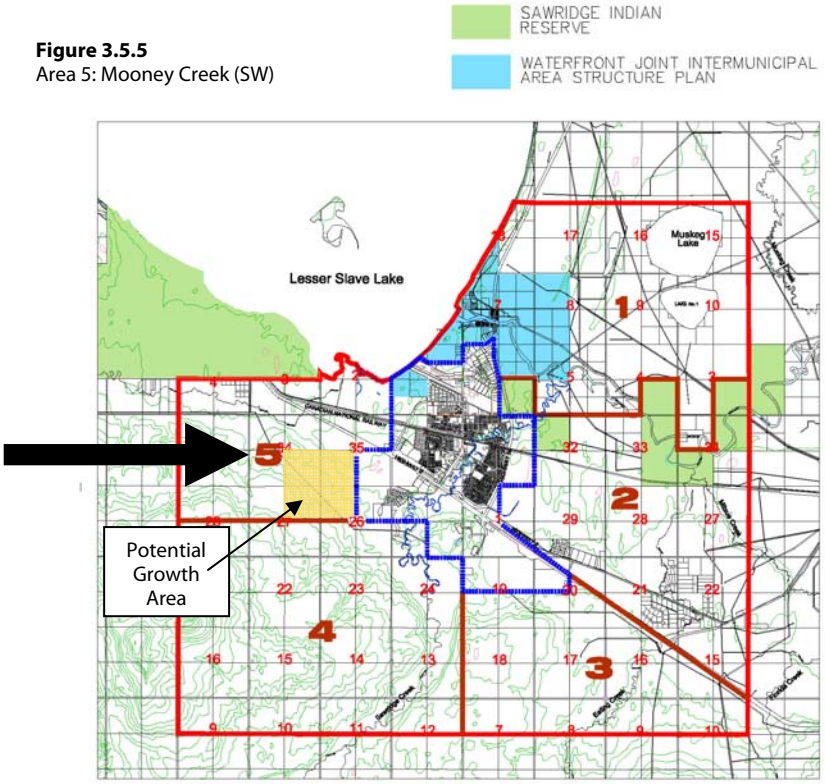
- significant environmentally sensitive lands along Sawridge Creek with large areas of developable uplands to the west
- slopes and soils that may be conducive to efficient sewer and water utility servicing, with relatively moderate potential for issues related to unstable lands or hazardous development conditions
- limited transportation access into the Town via municipal roads through the South Expansion Area Structure Plan
- sectoral development patterns within the Town that include commercial, residential, and public park uses
- no significant development within the M.D.
- existing approved statutory plan within the Town (South Expansion Area Structure Plan).

Figure 3.5.4 shows the portions of Area 4 that may be suitable for future growth. Most of the significant growth opportunity within Area 4 is located on the uplands to the west of Sawridge Creek. Those uplands have high potential for residential development with attractive views, while the valley of Sawridge Creek provides an opportunity for the establishment of a regionally significant and publicly accessible natural open space amenity. Future growth potential for this area can accommodate more than **5.0** quarter sections for residential and associated land uses.

Growth Potential: HIGH

3.5.5 Area 5: Mooney Creek (W)

Figure 3.5.5
Area 5: Mooney Creek (SW)



Area 5 is characterized by:

- a mix of low-lying lands with high water table and poor soils to the north and east, with more developable uplands to the south and west
- site-specific utility servicing issues and opportunities that will depend upon detailed analysis of topography, water table, soils, and slope stability
- good east-west transportation connections via municipal roads, Highway 2, and the Canadian National Railway
- sectoral development patterns within the Town that include public service, commercial, residential, and light industrial uses
- a moderate amount of development within the M.D. that includes mixed residential, commercial, and recreational uses
- First Nations lands to the north along the southern shore of Lesser Slave Lake
- interjurisdictional conditions that may involve the need for future coordination of transportation, servicing, and development among the Town, the M.D., and Sawridge First Nations

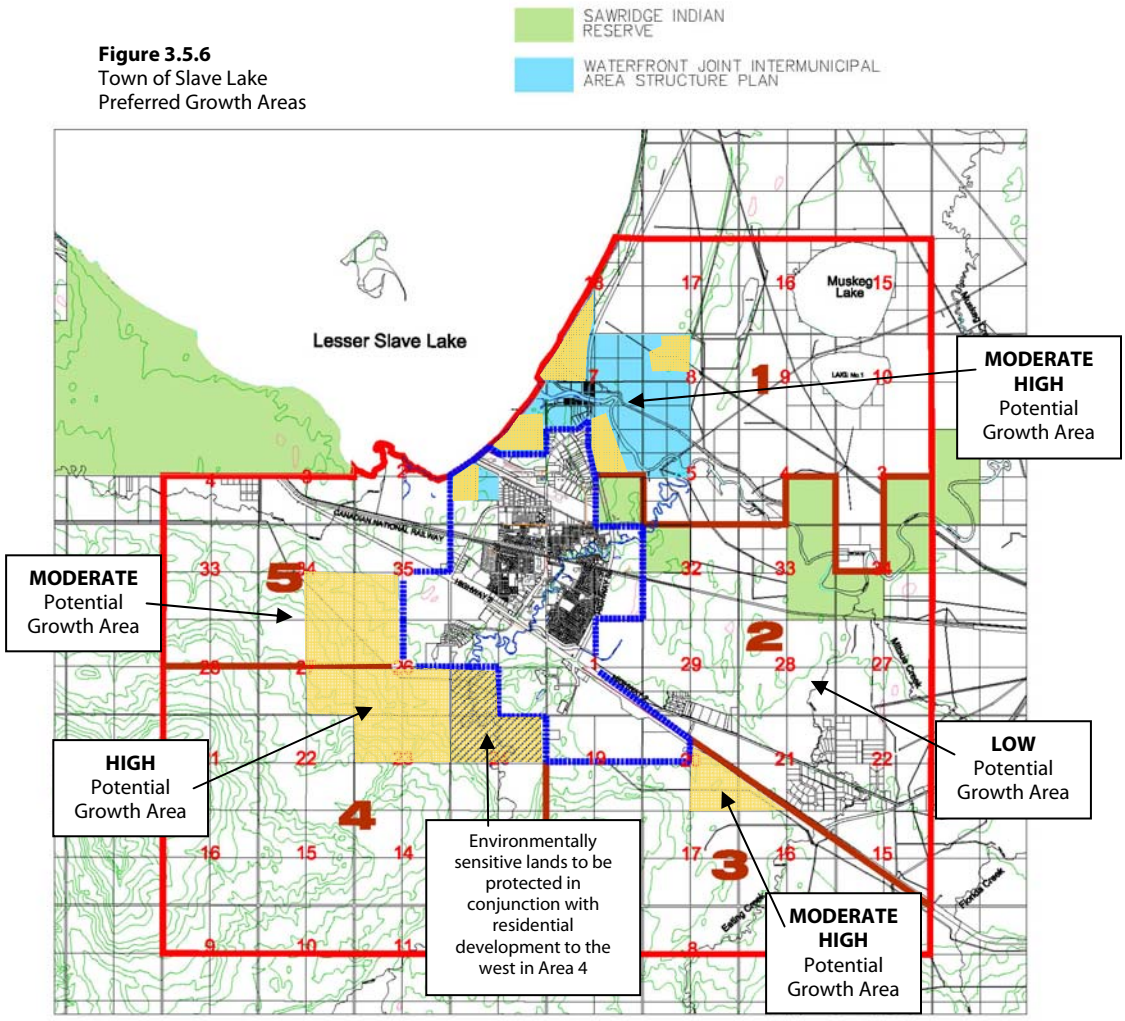
Figure 3.5.5 shows the portions of Area 5 that may be suitable for future growth. Most of the significant growth opportunities within Area 5 lie further to the southwest, where the more easily developable uplands are located. Intervening environmentally significant or hazardous lands may limit opportunities for contiguous development, which could reduce servicing efficiencies in the long term. Future growth potential for a variety of residential, commercial, light industrial, and public service land uses may exist on up to **4.0** quarter sections within this area.

Growth Potential: MODERATE

3.5.6 Summary of Preferred Growth Areas

Figure 3.5.6 provides a composite view of the preferred growth areas recommended in this study. These areas should form a general basis for more detailed technical study, intermunicipal discussion, and public consultation prior to urban development.

Figure 3.5.6
Town of Slave Lake
Preferred Growth Areas



The following table, Table 2.4, summarizes the preferred growth areas for the Town of Slave Lake:

Table 3.5
Summary of Preferred Growth Areas

Area	Growth Potential	¼ Sections Available	Type of Land Use
Area 1	Moderate High	3.0	residential and non-residential
Area 2	Low	none	
Area 3	Moderate High	1.5	residential and non-residential
Area 4	High	5.0	residential
Area 5	Moderate	4.0	residential and non-residential
TOTAL QUARTER SECTIONS OF PREFERRED GROWTH AREAS		**13.5**	

The Town requires 9.0 quarter sections of land to accommodate future growth over the next 30 years. As identified in Table 2.4, there are 13.5 quarter sections adjacent to the Town's boundary that have various levels of potential for future growth. Area 4 to the south of the Town has the highest growth potential on 5.0 quarter sections of land outside the Town's southern boundary, while Areas 1 and 3 have moderate high growth potential on 4.5 quarter sections of land. Area 5 has moderate growth potential on 4.0 quarter sections of land.

3.6 Annexation

This section provides answers to commonly-asked questions about the annexation process, the responsibilities of the municipalities involved, the role of the public, and the role of the province in the annexation process.

Every annexation process will be unique and will need to be responsive to the unique interests of the local stakeholders and municipalities involved. Therefore, the following information is not intended as a prescriptive model but is rather intended to describe legislative requirements and common practices.

What are the Main Steps in the Annexation Process?

The following sequence of events describes the major steps in an annexation process and possible stages for a public consultation program. This program contains mandatory components (MGA) and recommended components that are typically part of a significant annexation process.

1) **Formal notice of intention to annex (MGA)**
The municipality initiating annexation provides notice of intent to annex territory to the Municipal Government Board and to the Municipality from which the lands are proposed to be annexed (MGA Section 116(1)). The notice must describe the lands to be annexed and the reasons for the annexation.

2) **Establish Inter-municipal Negotiation Committee (MGA)**
Both municipalities must meet, discuss the annexation proposal and negotiate in good faith. If there are matters on which there is no agreement, the initiating municipality must attempt mediation and if mediation failed or did not occur, the reasons for this must be provided to the Board along with the negotiation report. If there is agreement between the municipalities, the report must still be filed with the Board (MGA Section 117(1)(2), 118, 119).

3) **Establish Annexation and Public Consultation Process (MGA)**
In its formal notice of intention to annex, the initiating municipality must include proposals for consulting with the public and meeting with the owners of the land to be annexed (public consultation plan). The public consultation process should be endorsed by both municipalities.

4) **Public Newsletter #1**
A public newsletter can be used to communicate the annexation proposal to the public and landowners within the annexation area and adjacent to the annexation area, as outlined in a public consultation plan, agreed upon by both municipalities.

5) **Public Open House Meeting #1**
A well advertised public open house meeting can be used to communicate the annexation proposal to the public and landowners and provide opportunity for questions and discussion.

6) **Intermunicipal Committee Meetings**
Ongoing committee negotiations to address municipal concerns and address comments/feedback from landowners and the public.

7) **Draft Intermunicipal Agreement**
Draft Annexation Agreement prepared based on intermunicipal discussions and public and landowner feedback.

8) **Public Newsletter #2**
Communicate contents of draft annexation agreement.

9) **Public Open House #2**
Communicate contents of draft intermunicipal agreement and provide opportunity for discussion.

10) **Endorsement of Annexation Agreement by both Councils**
Upon completion, the recommended annexation agreement is typically forwarded to the respective municipal Councils for approval of full Council.

11) **Submit formal Annexation Application to the provincial Municipal Government Board (MGA)**
The negotiation report, all related information and the appropriate fees must be sent to the Board at which time the proposal becomes an official application for annexation (MGA Section 119(1)). If the Board decides that there is general agreement with the proposed annexation, it will notify all interested parties, including landowners that objections or concerns must be received by a certain date (usually within a month). If no objections are received then the Board will not hold a public hearing. The Board will then forward its report and recommendation to the Minister of Municipal Affairs (MGA 120(1)(2)).

12) **Municipal Government Board determines if Public Hearing required (MGA)**
If the Board receives objections within the specified time or if the Board finds there is not general agreement and that mediation attempts have failed, then the Board must conduct one or more hearings and allow any affected person to appear before the Board at the hearing (MGA Section 120(3)). The Board's notice of hearing must be advertised for two consecutive weeks in a newspaper which is circulated in the affected territory. After the hearing is closed, the Board forwards its report and recommendations to the Minister of Municipal Affairs (MGA Section 122, 123, 124)

13) **Municipal Government Board recommendation to the provincial Lieutenant Governor in Council (Cabinet)**

14) **Decision by the Lieutenant Governor in Council (MGA)**
The Lieutenant Governor of Alberta, after considering the Board's report may, by Order in Council, approve, approve in part or refuse the annexation proposal. The Order in Council may list specific conditions of approval if the annexation has been successful in full or in part (MGA Section 125, 126, 127, 128).

How are Landowners Involved in the Annexation Process?

The Municipal Government Board will expect that all affected landowners will have been consulted and that their views have been taken into consideration in finalizing the annexation agreement/application that is ultimately submitted to the Board. A typical public consultation program will include a series of newsletters and open houses. The intent of the public consultation program is to inform residents of the intent to annex the annexation process, to answer questions about the effect of annexation on particular parcels, and to provide opportunity for residents to provide feedback on the annexation areas.

What Factors are considered by the Municipal Government Board?

Brown and Associates Planning Group have reviewed numerous Municipal Government Board Annexation Orders. On the basis of this review the following criteria have been identified as important considerations to be weighed by the Municipal Government Board in past decisions.

- A clear demonstration of the need for the proposed annexation lands: i.e.,
  - that there is a minimal amount of land currently available for development within the current municipal boundaries
  - that the municipality has been experiencing rapid growth

- that the economic and population projections support the proposed annexation

- That the annexation is supported by an Intermunicipal Development Plan and a growth study
- That the annexation is a logical extension of existing patterns of development and servicing
- That existing servicing capacities are efficiently utilized
- That future land use patterns make efficient use of land, infrastructure, public services and public facilities which promote resource conservation, enhance economic development activities, minimize environmental impact, protect significant natural environments and contribute to the development of healthy, safe and viable communities
- That mechanisms are in place to deal with any related environmental issues
- That the municipality is in a position to administratively deal with the expected growth and manage the financial impacts
- A thorough understanding and documentation of the primary stakeholders and their issues/concerns surrounding the annexation, the steps taken to resolve issues/concerns, how the final annexation agreement changed to incorporate landowner concerns, the final position of the major stakeholders in regards to the annexation identifying areas that are controversial.
- Significant emphasis on consultation with affected authorities, municipalities and landowners, ensuring that planning activities are carried out in a fair, open, considerate and equitable manner and that opportunities were provided for meaningful participation in the planning process by residents, landowners, community groups, interest groups, municipal service providers and other stakeholders:
  - develop a public consultation process / interviews with affected landowners
  - ensure that all landowners within the proposed annexation area as well as outside/adjacent to the proposed annexation area have opportunity to voice their concerns
  - ensure that a clear and concerted effort was made to establish a cooperative relationship between municipalities – if at all possible, the MGB would like municipalities to cooperate in the planning of future land uses in the vicinity of their adjoining boundaries
  - take additional time and effort to discuss the implications, responses and remedies with affected landowners ensuring that all parties understand each other's position, that all parties have a good understanding of the annexation proposals, and that municipalities have a good understanding of the concerns being raised
  - try to resolve primary landowner issues/concerns prior to final submission to the MGB

- clearly document process and results, including dates of meetings, purpose of meetings, what occurred at the meetings, and the end result of the meetings

- Significant emphasis on agreement or mediated solution between the affected municipalities

3.7 Implementation

The most critical stages in the implementation of growth management measures, including changes to municipal boundaries, include negotiation of intermunicipal agreements and meaningful public consultation. The Alberta Municipal Government Act and the Municipal Government Board, which decides matters related to intermunicipal issues such as annexation, both require public consultation and negotiation of intermunicipal agreements before adjustments to municipal boundaries will be considered.

Intermunicipal agreements on growth management and annexation must be based on the open sharing of information, resources, and analysis. Economic and fiscal data, population projections, triggers for infrastructure upgrades, and planning for service provision all require intermunicipal collaboration.

The Town of Slave Lake and the M.D. of Lesser Slaver River have been able to cultivate positive intermunicipal relations over a long period of cooperation on matters such as economic development, tourism, service provision, cost-sharing, and revenue-sharing. This tradition of good faith agreement is not necessarily common among municipalities in Alberta or across Canada. The Town and the M.D. have a significant opportunity to take advantage of this prevailing good will by negotiating and sustaining a long-term intermunicipal agreement on growth management, including annexation if deemed appropriate and mutually beneficial through the negotiation process.

Long-term commitment to intermunicipal cooperation increases public support for local government and makes the most effective use of scarce municipal resources. Irrespective of any agreement negotiated by the Town and the M.D., issues of growth management and annexation need the endorsement of citizens from both municipalities. The success of this Growth Study will depend upon meaningful citizen engagement in its implementation over the long term.

Attachment 1 - The Annexation Process

The following information includes a general description of the annexation process, a flowchart of events, and specific information pertaining to the actual annexation submission.

General Description of the Annexation Process

General Description of Annexation Process **(Alberta Municipal Government Act. Division 6, Sections 112.1 to 128)**

1. The municipality proposing an annexation must provide notice to the Board and to the municipality from which the land is to be annexed. The notice must describe the lands to be annexed and the reasons for the annexation. The notice must include proposals for consulting with the public and meeting with the owners of the land to be annexed. If the proposal is an uncontested application pursuant to Section 126 of the Act and the municipality is satisfied that there is no objection to the proposal, public consultation is not required.

2. Both municipalities must meet, discuss the annexation proposal and negotiate in good faith. If there are matters on which there is no agreement, the initiating municipality must attempt mediation and if mediation failed or did not occur, the reasons for this must be provided to the Board along with the negotiation report. If there is agreement between the municipalities, the report must still be filed with the Board.

3. The negotiation report, all related information and the appropriate fees must be sent to the Board at which time the proposal becomes an official application for annexation.

4. If the Board decides that there is general agreement with the proposed annexation, it will notify all interested parties, including landowners that objections or concerns must be received by a certain date (usually within a month). If no objections are received then the Board will not hold a public hearing. The Board will then forward its report and recommendation to the Minister of Municipal Affairs.

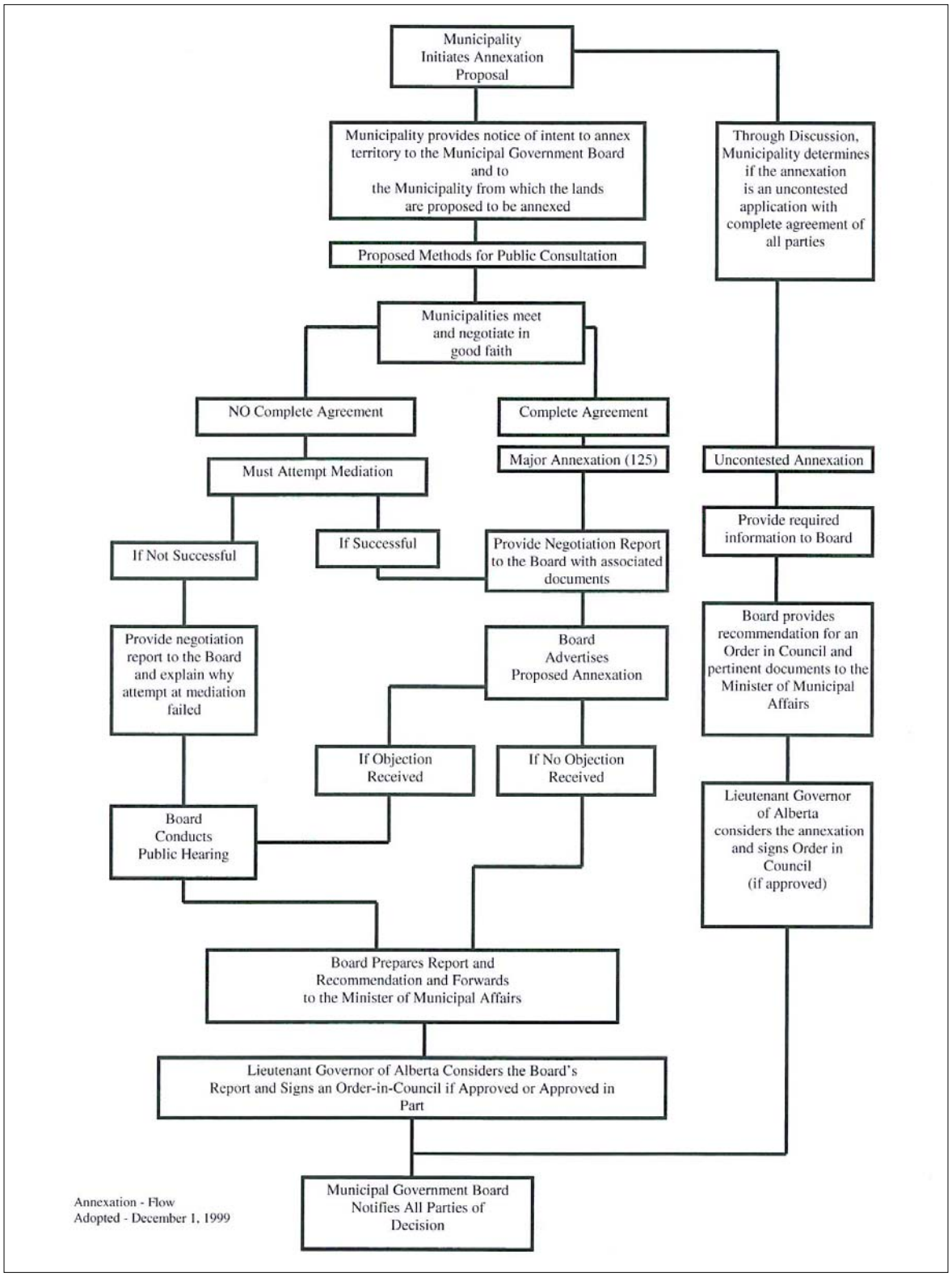
5. If the Board receives objections within the specified time or if the Board finds there is not general agreement and that mediation attempts have failed, then the Board must conduct one or more hearings and allow any affected person to appear before the Board at the hearing.

6. The Board's notice of hearing must be advertised for 2 consecutive weeks in a newspaper which is circulated in the affected territory.

7. After the hearing is closed, the Board forwards its report and recommendation to the Minister of Municipal Affairs.

8. The Lieutenant Governor of Alberta, after considering the Board's report may, by Order in Council, approve, approve in part or refuse the annexation proposal. The order in Council may list specific conditions of approval if the annexation has been successful in full or in part.

Annexation Flowchart



Submitting the Annexation Application

ANNEXATION APPLICATIONS **Administrative Requirements**
(For notification requirements see Section 116 of the Municipal Government Act)

1. Application Fee (Cheque payable to Minister of Finance)

   $300.00 for the first quarter section or portion of a quarter section.

   $50.00 for each additional quarter section or portion of a quarter section.

2. An up-to-date map showing the location of the existing municipal boundary and the proposed municipal boundary.

3. Excerpts from any Municipal Development Plan or other Statutory Plan that apply to the application.

4. A description of the intended uses for the annexation area including a general description of how the area can be serviced with water, sewer, storm sewer and other related municipal services.

5. The written consent (or signed negotiation report) of the municipality from which the land is to be annexed.

6. The up-to-date written consent (signed) of each landowner with territory in the annexation area.

7. The results of the public consultation process (Public consultation not required for Section 126 application).

8. Which boundary roads are to be included or excluded in the annexation approval.

9. Up to date copies of titles for each parcel proposed to be included in the annexation.

10. The names and mailing addresses of each landowner and each circulation agency or any other party known to have an interest in the annexation proposal.

11. Any special requirements such as the effective date of the annexation, any special conditions regarding assessment and taxation, any special conditions on compensation or revenue sharing and references to any other matter which may arise during the annexation process prior to submission of the formal application.

***Other information that may be required by the Board after the formal application is* received.**
Contact: Dennis Hawthorne, Senior Secretariat Advisor, Municipal Government Board - 15th Floor, Commerce Place, 10155 - 102 Street, Edmonton, Alberta, Canada, T5J 4L4. Direct Phone: 780-422-8652; Direct Fax:780-427-0986. e-mail: dennis.hawthorne@gov.ab.ca

Attachment 2 - Engineering Servicing Review

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Town of Slave Lake Growth Study

Engineering Servicing Review

TOWN OF SLAVE LAKE

brown & associates PLANNING GROUP

Presented to:

Mr. Don Schultz
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Report No. 3064058.00 January 11, 20007

1.0 INTRODUCTION

Brown and Associates Planning Group (Brown and Associates) has been tasked with identifying and analyzing the suitability of the surrounding lands adjacent to the existing town site of Slave Lake for expansion of the Town's residential and commercial/industrial land base. Morrison Hershfield Limited was commissioned by Brown and Associates to complete the storm sewer, water, sanitary sewer and transportation analysis of this assignment, and to add value to the study by identifying development constraints relating to the Town's existing sewer, water and road infrastructure.

2.0 SITE DESCRIPTIONS

The Town is bound by Lesser Slave Lake to the northwest, flat low-lying lands to the north and east, and forested hills to the south. For the purpose of this study, the lands surrounding the Town were divided into Areas numbered 1 through 5, as shown in the attached Figure 1, and listed below:

- Area 1 - Muskeg
- Area 2 - Mitsue
- Area 3 – Eating Creek
- Area 4 – Sawridge Creek
- Area 5 - Mooney

After a topographic review, site inspection and discussions with Town staff, Areas 1, 2 and 5 were eliminated from further analysis, based upon high groundwater table, poor geotechnical conditions for building, difficulty with potable water supply, an abundance of existing gas and oil pipelines, and proximity to the existing sewage lagoons. Area 3 (Eating Creek vicinity) and Area 4 (Sawridge Creek vicinity) were identified as the two key areas to focus attention on for the purpose of this analysis.

3.0 DETAILED ENGINEERING ANALYSIS

3.1 Area 3 - Eating Creek

Area 3 (Eating Creek) is located south of Highway 2, and is comprised of a densely forested property that lies on a height of land between Eating Creek and Sawridge Creek. It is comprised of approximately 1,090 ha (2,700 ac) of gross developable land assuming reasonable setbacks to the creeks and adjacent slopes. The proximity to the existing Town landfill in NW¼ Sec19-72-05-W5M will require setbacks to residential development.

The existing road system at Highway 2 will most likely have to be extended from existing intersections at Highway 88 and another intersection further to the east. The slopes and terrain in Area 3 will probably not cause any impediment to development. However, the lands close to Highway 2 to the west at the bottom of the hill do pose some geotechnical challenges to construction. Underdrains and special road foundations are to be expected.

The sewage treatment lagoons located in NE¼ Sec31-72-05-W5M will require a significant upgrade to be able to handle the increased flows from Area 3. It is estimated that the average daily flows from Area 3 at build-out will be in the order of 17,000 m^3 per day. Because of the size and location of the property to be developed, significant gravity trunk sewer mains will need to be incorporated into the on-site design, as well as upsizing existing trunk mains to permit flows to reach the existing Town lagoon site.

The water treatment plant located in SE¼ Sec06-72-06-W5M will require a significant upgrade to be able to supply potable water to Area 3. This will likely include an upgrade to all aspects of the water supply, including the raw water diversion, raw water transmission to the water treatment plant, the plant treatment capacity, treated water storage, as well as distribution pumps. The operating preference is to maintain all storage at the water treatment plant and operate a booster station in order to supply water to Area 3, but this is a topic for a more detailed engineering study. The creation of a booster station may be located at the water treatment plant with a separate distribution pump system operating for the higher elevations of the Area 3 pressure zone.

The storm sewer system for the Town of Slave Lake is critical to the Town, as it lies in a low area that can be prone to flooding from Sawridge Creek. A diversion barrage has been constructed north of the intersection of Highway 2 and Highway 88 that diverts significant flows to low lying areas east of Highway 88. While Sawridge Creek does go through the Town on its way to Lesser Slave River, control of those peak flows as it passes through the Town is especially important. An area stormwater management report and master drainage plan will be needed to identify major piped flow routes, overland drainage routes and peak flow attenuation reservoirs. These features will take stormwater to both Eating Creek and Sawridge Creek. Sawridge Creek may include some improvements to attenuate peak creek flows after rainfall events to assist with mitigation of flooding in the Town.

3.2 Area 4 – Sawridge Creek

Area 4 (Sawridge Creek) is located south of Highway 2, and is comprised of a forested property that lies on a height of land west of Sawridge Creek with some roads available and an existing residential development close to Highway 2. It consists of approximately 1,440 ha (3,550 ac) of gross developable land assuming reasonable setbacks to the creek and adjacent slopes.

The existing road system at Highway 2 will have to be extended into Area 4. The existing Gloryland Estates has

developed a road access from Highway 2, but is likely not suitable as a collector road, and a new intersection at Highway 2 will need to be developed. The slopes and terrain in Area 4 will probably not cause any impediment to development. However, the lands close to Highway 2 to the west, at the bottom of the hill do pose some geotechnical challenges to construction. Underdrains and special road foundations are likely.

The sewage treatment lagoons located in NE¼ Sec31-72-05-W5M will require a significant upgrade to be able to handle the increased flows from Area 4. It is estimated that average daily flows from Area 4 at build-out will be in the order of 22,000 cu.m. per day. Because of the size and location of the property to be developed, significant gravity trunk sewer mains will need to be incorporated into the on-site design as well as upsizing existing trunk mains to permit flows to reach the existing Town lagoon site in SE¼ Sec31-72-05-W5M. It is anticipated that no lift stations will be required to direct sanitary sewage flows to the lagoons.

The water treatment plant located in SE¼ Sec25-72-06-W5M will require a significant upgrade to be able to supply potable water to Area 4. This will likely include an upgrade to all aspects of water supply, including the raw water diversion, raw water transmission to the water treatment plant, the plant treatment capacity, treated water storage as well as distribution pumps. The operating preference is to maintain all storage at the water treatment plant and operate a booster station in order to supply water to Area 4, but this is a topic for a more detailed engineering study. The creation of a booster station may be located at the water treatment plant, with a separate distribution pump system operating for the higher elevations of the Area 4 pressure zone. This booster station may be sized to eventually handle water requirements for both Areas 3 and 4.

The storm sewer system for the Town of Slave Lake is critical to the Town, as it lies in a low area that can be prone to flooding from Sawridge Creek. A diversion barrage has been constructed north of the intersection of Highway 2 and Highway 88 that diverts significant flows to low lying areas east of Highway 88. While Sawridge Creek does go through the Town on its way to Lesser Slave River, control of those peak flows as it passes through the Town is most important. An area stormwater management report and master drainage plan will be needed to identify major piped flow routes, overland drainage routes and peak flow attenuation reservoirs. These features will take stormwater to Sawridge Creek. Sawridge Creek may include some improvements to attenuate peak creek flows after rainfall events to assist with mitigation of flooding in the Town.

4.0 ACREAGE ASSESSMENTS

As mentioned in Sections 3.1 and 3.2, infrastructure improvements will become necessary as a result of build out in this development area. These improvements are repeated as follows:

- Upgrades to sewage treatment lagoons
- Highway 2 / Highway 88 intersection upgrade
- Potable water supply upgrades

The costs associated with the above referenced upgrades will be borne by the developers of this annexation area, in the form of off-site levies. Upon annexation of these lands, the Town of Slave Lake Off-Site Levy Bylaw should be amended to identify the costs and timelines associated with the above referenced upgrades. At this time, the bylaw should also be amended to identify the levies applicable for the developable area.

5.0 SUSTAINABLE ENGINEERING FOR RESIDENTIAL LANDS

In order to address the heating and cooling requirements of a northern Albert climate, some subdivision authorities are closely looking at both solar and geothermal sources for this energy. Typically, arrays of solar panels located on roofs throughout the community generate thermal power during the day and supply heat to a district heating system. The solar panels absorb the energy from the sun during daylight hours, and heat a glycol solution that runs through an insulated piping system that connects all the solar arrays to the heat exchanger at the community heat plant. The heat exchanger transfers heat to the water stored in a short-term storage tank (STTS). The glycol solution carries on through its loop back to the solar collector system.

During the warmer months, the heated water is distributed from the short-term storage tank to boreholes that are drilled deep (50 to 100 m) into the ground, via a series of pipes. Typically, the boreholes are located centrally to the heat plant, and can be located below a park or playground. As the heated water travels through the pipe-work, heat is transferred to the surrounding earth. The temperature of the earth will rise significantly by the end of each summer. To keep the heat in, the boreholes are covered with insulation, a waterproof membrane and other landscaping materials. The water completes its circuit of the borehole system and returns to the short-term storage tanks in the heat plant to be heated again, and to repeat the same process.

When winter arrives and homes require heating, the heated water in the boreholes passes to the short-term storage tank in the heat plant, and is then circulated to the homes through the district heating loop. Upon reaching each home, the heated water passes through a heat exchanger and heat is passed from water to air and then distributed throughout the house, via the house ductwork.

The system only initiates heat transfer when the temperature within a preceding component rises higher than the temperature within a succeeding component. For example, as the sun rises and the solar collectors heat up, the collector loop is turned on once the glycol temperature rises

above the temperature of the water in the energy centre's short-term storage tanks. Energy is then transferred from the collectors to the STTS. Similarly, after the water temperature in the STTS rises above the borehole thermal energy storage (BTES) temperature, the BTES pump is turned on to transfer heat from the STTS to the BTES. The collectors will heat up the STTS about twice as fast as the BTES can remove heat from the STTS. Consequently, the collector pump will shut off when the sun goes down, while the BTES pump will run most of the night. When the houses need heating in the winter, the heat from the collectors will be directed from the STTS into the district heating loop, and not transferred to the BTES. The district heating loop temperature varies with outdoor air temperature. As it gets colder outside the district heating loop, the inside temperature is raised. This temperature is regulated by the heat exchanger between the STTS and the district heating loop. If the STTS, in conjunction with the heat provided by the collectors, is not hot enough to meet the demands of the district heating loop, then heat from the BTES is transferred to the STTS for use.

If the STTS still cannot meet the demand for heat, the Energy Centre's back-up gas boiler will turn on to increase the temperature.

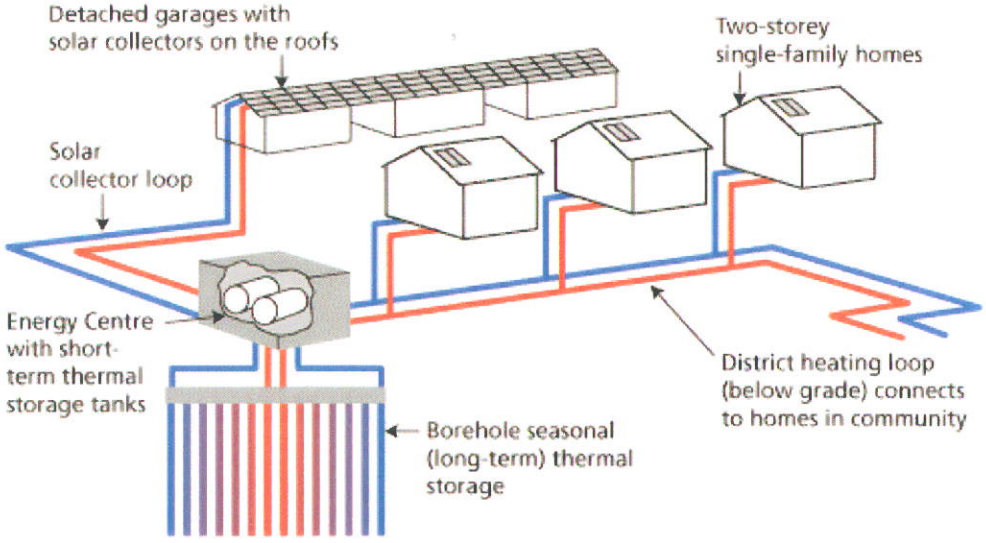

Figure 1 – Geothermal Heating/Cooling